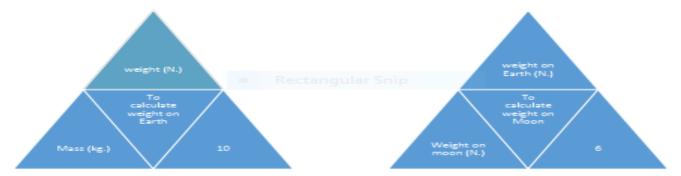


# Unit 1: Lesson one: Mass and weight

P.O.C	Mass	Weight	
1-Definition	The amount of matter in an object.	The gravitational force by which the body is attracted to the Earth.	
2-Measuring devices (tools)	<ul> <li>Balance scale</li> <li>Sensitive two-arms scale</li> <li>One-arm digital scale.</li> <li>One-arm scale with pointer.</li> </ul>	Spring scale	
3-Measuring units	• Gram (gm.) • Kilogram (kg.)	• Newton (N.)	
4-Definition of units	Gram (gm.): equals to the mass of one paper clip (for small masses like jewels.  Kilogram (kg.): equals to the mass of one liter of distilled water (for large masses like vegetables and fruits).	• Newton (N.): the weight of an object whose mass is 100 grams.	
5-By changing places	It is a fixed value     (constant) that doesn't     change by changing     places	It isn't a fixed value, it differs from one place to another because the gravitational force changes from one place to another.	
6-Direction	No direction for the mass.	• Towards the center of the Earth.	





### • The most important questions:-

#### Give reason:-

1. The mass of an object on Earth equals its mass on the moon.

Because mass is a fixed value that doesn't change by changing places.

2. The weight of an object changes according to the planet that object exists on.

Because the gravitational force changes from one planet to another.

3. The moon's gravity is less than the Earth's gravity.

Because the mass of moon is smaller than the mass of Earth.

4. The weight of an object is affected by its mass.

Because the weight of an object = its mass x 10, so the greater the mass the greater the weight.

5. The weight of a body in a balloon is smaller than that on the Earth.

Because the distance between body and center of Earth in balloon is greater than that on the Earth.



## **Unit 2: Thermal energy**

### lesson one: Heat conduction

- <u>Heat energy</u>: form of energy that transfers from object higher in temperature to object lower in temperature.
- <u>Temperature</u>: the degree of hotness or coldness of a body.
- Importance of heat:-
- 1. At home (cooking water heating warming drying)
- 2. In industry (paper glass food industry)
- Materials according to their heat conductivity:-

P.O.C	Heat conductors (good conductors of heat)	Heat insulators (bad conductors of electricity)  They are materials that don't allow heat to flow through them.	
Definition	They are materials that allow heat to flow through them.		
Examples	Copper – iron - aluminum	Plastic – wood – rubber	
Uses	<ul><li>Used in making:-</li><li>Cooking pots.</li><li>Kettles.</li></ul>	<ul> <li>Used in making:-</li> <li>Handles of cooking</li> <li>pots – iron – kettles.</li> <li>Heavy blankets and</li> <li>woolen clothes.</li> </ul>	



### • Important notes:-

- 1) Copper conducts heat faster than iron and aluminum.
- 2) All metals are good conductors of heat.
- 3) On constructing the railways, gaps are left between the bars to avoid the train accidents, as iron is a good conductors of heat that expand and twist by heat.
- 4) Insulating glass windows are made by bonding two sheets of glass and maintaining a space between them filled with air to prevent the leakage of heat as air and glass are bad conductors of heat.
- •The most important questions:-

#### Give reason:-

- **1.** Aluminum are used in making cooking pots. -Because it is a good conductor of heat.
- 2. Wool and plastic are heat insulators. -Because they are bad conductor of heat.

## Unit 2: lesson 2 Measuring temperature.

<u>Thermometer</u>: it is the device that is used to measure the temperature.

Types of the thermometers:

Points of comparison.	The medical thermometer 3	The Celsius thermometer.
-Range of scale	-From 35°C to 42°C	-From 0°C to 100°C
	Each degree is divided into	•The distance from 0°C to
	ten parts .	100°C is divided into 100
		parts .
-Constriction	-Present	-Absent
-Used liquid	-Mercury	-Mercury
-Usage	- It is used to measure the	- It is used to measure
	temperature of the human	the temperature of
	body.	liquids.



-Structure	1-A thick glass tube.	1-A thick glass tube.
	2- A capillary tube closed	2- A capillary tube closed
	from one its ends.	from one its ends.
	3-A mercury bub that filled	3-A mercury bub that
	with mercury .	filled with mercury .
	4-Constriction.	

### -The main idea of making the thermometers

is changing the volume of liquids by changing the temperature, where liquids expand by heating and contract by cooling.

#### Give reason:

#### 1- mercury is used in making of thermometers?

- 1- it is a liquid metal that can be seen easily through the capillary tube.
- 2- It is a good conductor of heat.
- 3- It expands regularly to give an a accurate measurement.
- 4- It does not stick to the walls of the capillary tube
- 5- It remains liquid between ( -39°C) and (357°C) so it gives a wide range for measuring temperature.

#### 2-There is a constriction above the bulb in the medical thermometer.

To prevent the mercury from going back to the bulb quickly, so we can read the temperature measurement easily.

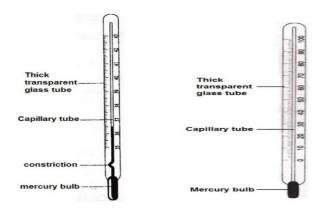
#### 3-The medical thermometer must be kept out of the reach of children.

-Because the mercury inside it is toxic.

#### How to use clinical thermometer to measure temp:

- 1) Sterilize the thermometer using ethyl alcohol.
- 2) Dry it well using a tissue paper.
- 3) Shake it well until mercury goes back to the bulb.
- 4) Put it under the tongue for a minute.
- 5) Get it out from mouth and record the reading.
- 6) Sterilize the thermometer using ethyl alcohol and put it in its box .





Medical thermometer

The Celsius thermometer

#### Note:

-Some thermometers contain two scales , one represents Celsius scale and the other represents Fahrenheit scale (OC =32F and 100C=212F).

The temperature of healthy human is 37° c.





## **Unit 3:the Atmosphere**

**Atmosphere:** it is a mixture of gases surrounding the earth and attracted to the it by the effect of gravity.

#### Importance of atmosphere:

- 1-it protects the Earth by absorbing ultraviolet radiations.
- 2-It adjusts the temperature of the Earth's surface.

#### **Structure of the atmosphere:**

- 1- Nitrogen gas that represents 78% of the atmosphere.
- 2- Oxygen gas that represents 21% of the atmosphere.
- 3- Carbon dioxide gas and other gases that represents 1% of the atmosphere.

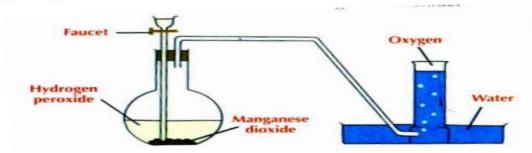
#### Oxygen gas

### Structure of oxygen:-

It consists of two -atoms molecules so it is symbol as O2.







- The ratio of oxygen doesn't change in air.

Because the used Oxygen in respiration and combustion processes is always compensated by photosynthesis, where green plants take carbon dioxide & produce oxygen.

#### Note:

- The scientist who discovered Oxygen is Josef Priestley.

The scientist Antoine Lavoisier gave it the name oxygen.



### **Properties of oxygen**

- 1-It is (colorless, tasteless and odorless).
- 2-It **scarcely** (rarely) dissolves in water.
- 3-It has a neutral effect on (red and blue) litmus papers.
- 4-Oxygen doesn't burn, but helps in burning.
- 5-Oxygen is **heavier** than air as it replaces the air upward.

The direct combination between oxygen and elements

Element + oxygen Element----- → oxide

#### Oxygen combines with elements in two ways

- A) oxidation(rusting):it is a slow combination of oxygen with elements in the presence of water.
- B) **Combustion (burning)**: it is a rapid combination of oxygen with elements and it produces heat and light.

#### The importance& uses of oxygen:

- 1. Oxygen is important in respiration and food combustion processes to produce energy necessary for vital activities.
- 2. Water consists of oxygen united with Hydrogen [H<sub>2</sub>O]

**Ozone** molecule is composed of three oxygen atoms  $[O_3]$  which forms the ozone layer.

✓ The Ozone layer protects the Earth from the harmful radiation that comes from the sun.

- 3. Oxygen is compressed in iron cylinders& used in:
- a. Mechanical ventilation for patients who suffers from breathing difficulties.
- b. During surgeries.
- c. During diving& climbing mountains. Why?

Because oxygen is heavier than air, so its percentage decreases as we rise above the Earth's surface).



### d. Cutting& welding metals:

When combines with Acetylene gas to produce( Oxyacetylene flame)

**Note:** The mass of the element increases when it combines with oxygen rusting.





## Carbon dioxide

Carbon dioxide gas forms 0.03% of the volume of atmosphere. Structure of carbon dioxide gas:



#### Sources of carbon dioxide gas:

- 1-Respiration of all living organisms during exhalation.
- 2-Combustion of organic substances such as oil, coal and gasoline.

Preparation of carbon dioxide gas in lab:



#### Properties of carbon dioxide gas:

- 1-it does not burn and does not help in burning.
- 2-It easily dissolves in water, so it is not collected by displacement of water.
- 3-It is heavier than air so it is collected by upward displacement of air.
- 4-It is a colorless and odorless gas.
- 5-It reacts with magnesium forming magnesium oxide(white powder) and carbon (black substance).

#### Harms of the increase of carbon dioxide gas:

- 1-suffocation of living organisms.
- 2-Increasing temperature of the Earth's atmosphere (global warming)
- ➤ The percentage of carbon dioxide in air decreases.
- •Green plants can't make their food [Photosynthesis]
- ■No enough food or oxygen.



#### Importance and uses of Carbon dioxide:

- 1. Carbon dioxide gas is used in Photosynthesis process in green plants to produce food& oxygen.
- 2. CO2 gas is used to make soft drinks.
- 3. CO2 gas is used to make bread bubbled as yeast.

**The yeast** produces carbon dioxide by fermentation process& carbon dioxide get expanded due to the heat making the bread porous& tasty.

- 4. CO2 gas is used in extinguishing fires because it does not burn & does not help in burning.
- 5. CO2 gas is used in refrigeration.

It is converted into liquid by pressure and cooling.

Then pressure is relieved composing dry ice that we use in refrigeration.





## Nitrogen gas

**Nitrogen:** is the most abundant gas in the atmosphere, where it forms 78% of the volume of the atmosphere.

#### Structure of nitrogen gas:



Its sources: Atmospheric air.

Its properties: 1-it scarcely dissolves in water.

2-It is a colorless, tasteless and odorless.

3-It does not burn and it does not help in burning.

#### Importance and uses of nitrogen gas:

- 1- It used in filling car tires
- 2- it is used to make stainless steel.
- 3-liquid nitrogen is used as treatment of skin tumor and cooling food products.
- 4-it is used in manufacturing of ammonia and ammonium nitrates.
- 5- it is used as inactive material in the tanks of liquefied explosive and electronic devices.
- 6-it is used to store petroleum and flammable material.
- 7- it is used to make stainless steel, gun powder and fill some types of lamps

#### The scientist who discovered nitrogen is **Daniel Rutherford**.

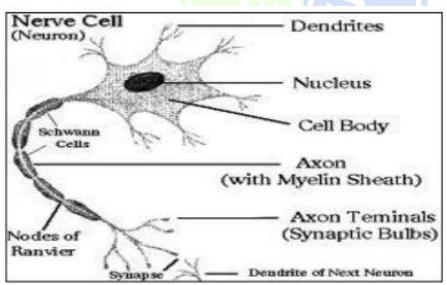
-Nitrogen is called azote (lifeless) because it doesn't help in burning and respiration .



## Unit (4): Structure and function

Lesson (1): Nervous system

- The nervous system consists of:
- ➤ The Central nervous system ➤ The Peripheral nervous system
- -The building unit of the nervous system is the Neuron
- The components of the Neuron:
- The neuron consists of two main parts:
- The cell body The Axon





Firstly: The Central nervous system

1-The brain 2- the spinal cord

#### 1-The brain:

- The main control center in your body.
- ➡ It directs& controls all the processes, ideas, behaviors& emotions.
- The brain is like the computer.
- The brain is located inside a bony box called the skull that protects it.
- → The brain is a nerve block containing millions of nerve cells; it is more complicated than the computer.



**Note:** the adult human's brain weight is about 1.5 Kg.

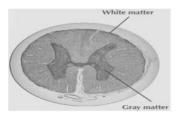
	Structure	Functions	
Cerebrum	■ The largest part of the	■ They control the voluntary	
[ Cerebral hemispheres]	brain.	movements of the body	
	■ Right& left halves [cerebral	[ e.g. running]	
	hemispheres]	■ Receive nerve impulses	
	■ The outer surface is called	from the 5 sense organs	
(1)	cerebral cortex& it is grey.	[ eyes, ears, nose, tongue&	
	■ The hemispheres have	skin]& send appropriate	
	many convolutions& folds on	responses to these impulses.	
	their surface.	■ Contains the centers of	
		thinking& memory.	
Cerebellum	■ It lies at the back area of	Maintaining [ keeping]	
	the brain below the two	the balance of the body	
	hemispheres.	during movement.	
Medulla	■ It is located in front of the	■ Regulates the	
oblongata	cerebellum.	involuntary processes as:	
	■ It connects the brain with	1. Heart beats.	
	the spinal cord.	2. The movement of the	
		respiratory system in	
		breathing.	
		3. The movement of	
		digestive system.	



#### 2- the spinal cord.

**Structure:** It extends in a channel within a series of vertebrae in the backbone, It is cylindrical& the spinal nerves extend from it.

<u>Under the microscope:</u> It consists of the grey matter [internal substance] in the shape of letter (H) surrounded by the white matter.



**Function:** It delivers nerve messages from the body organs to brain& vice versa.

It is responsible for reflex action, Such as the withdrawal of the hand quickly on touching a hot surface.

Reflex action: It is an involuntary response of the body when subjected to different external stimuli (as; light, heat and smell).

## second: Peripheral nervous system:

- They are nerves which emerge from the central nervous system [The brain& spinal cord]
- There are 12 pairs of nerves which emerge from the brain [Cranial nerves]
- There are <u>31 pairs of nerve</u> emerges from the spinal cord [Spinal nerves]

#### The function of these nerves is:

To get sensory information and kinetic responses between the central nervous system and all parts of the body.

#### Importance and functions of the nervous system:

- It carries nerve messages from one area of the body to another.
- Regulates all vital processes in the body.
- It receives the external stimuli that surround the human being through the sensory organs and identifies and interprets them.



## The ways of maintaining the human nervous system:

- 1. Reduce the intake of the stimulating substances [tea& coffee] as they affect the sleeping periods& heart beats and leads to nervous tension.
- 2. Stay away from tranquilizers& stimulants.
- 3. Don't sit for a long time in front of the computer& T.V. as they exhaust the sensory organs.
- 4. Give the body enough period of rest[during sleeping]
- 5. Avoid extreme exciting situation.
- 6. Stay away from the sources of pollution [ noisy places, smoke from cars& factories] as they affect the nervous system.
- 7. Doing physical exercises.





## Lesson (2): Locomotory system

The movement: It is the ability of the organism to change its position from place to another.

The Locomotory system consists of two major systems:

#### 1. The Skeletal system

	Structure	Function
The Skull	A bony box that contains	■ <u>Protects</u> the brain.
	cavities for eyes, ears& nose.	
Backbone	■ It consists of 33 vertebrae	It allows the body to
	with cartilage between them	bend in different directions.
	to prevent their friction during	■ It <u>protects</u> the spinal
	movement.	cord inside.
Rib Cage	■ It consists of 12 pairs of ribs.	It protects the lungs& the
	■ The <mark>first ten</mark> pairs are	heart.
	connected interiorly to the	■ It Helps in inhalation&
	sternu <mark>m[ breastbone]</mark>	exhalation processes.

### 2-The appendicular skeleton:

⇒ It consists of the bones of the upper& lower limbs.

	Structure	Function
Bones of the upper limbs	<ul> <li>They are connected to the shoulder bones.</li> <li>The upper bones are:</li> <li>Humerus bone</li> <li>Forearm bones</li> <li>Hand bones.</li> </ul>	■ They allow eating, drinking, writing& holding things.
■ They are connected to the pelvic bones. ■ The lower bones are:  1. Femur bone. 2. Shaft bones 3. Foot bones.		■ They allow walking, running, standing, sitting& carrying the rest of the body.

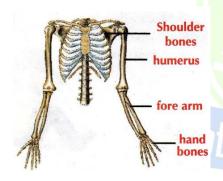


## The joints:

- They are the locations where bones meet in the body.
- They allow the movement between bones.

They are 3 types:

Immovable joints	Slightly movable joints	Freely movable joints	
■ They don't allow any	■ They allow movement in	■ They allow movement in	
movement.	one direction only.	all directions.	
■ Ex: joints between	■ Ex: Knee and elbow joints.	Ex: shoulder, wrist &	
bones of the skull.	10 S	thigh joints.	





Bones of the upper limbs

Bones of the lower limbs



## Final Revision - Grade 6

## Write a scientific term:

1-	The amount of matter in an object. ()		
2-	The force with which the body is attracted to the earth. ()		
3-	The measurement unit of mass which is almost equal to a mass of liter of water.		
	()		
4-	The measurement unit of weight which is almost equal to weight of a body its mass is		
	100 grams. ()		
5-	A device that is used to measure the mass of chemicals in lab. ()		
6-	A device that is used to measure the weight of an object. ()		
7-	Materials that allow heat to flow through. ()		
8-	Materials that don't allow heat to flow through. ()		
9-	A device is used to measure the temperature of human body. ()		
10-	A device is used to measure the temperature of liquids. ()		
	The liquid which is used in manufacturing of thermometers. ()		
	A device is used to measure the temperature. ()		
13-	The degree of hotness or coldness of a body. ()		
14-	A window which is made by bonding 2 glass sheets & maintaining air between them.		
15-	The fastest metal in conducting heat. ()		
16-	Increasing the size or getting bigger of metals by heating. ()		
17-	The thermometer which contains constriction. ()		
18-	A gas molecule consists of three atoms of oxygen. ()		
19-	A flame is used in cutting and welding metals. ()		
20-	A gas in which is prepared by using hydrogen peroxide. ()		
21-	An indicator that helps us to express the state of the body from the point of hotness		
	and coldness.		
22-	The substance that remains without a change in its quantity and properties (		



<b>23</b> - The scientist who re – discovered O2 gas. ()
<b>24-</b> The scientist who gave the Oxygen its name. ()
25- The rapid union between O2 and element which produces heat and light. ()
<b>26</b> - The slow union between O2 and element in the presence of moisture. ()
27- The layer that consists of 3 Oxygen atoms (O3) and protects the Earth from harmful
radiation. ()
<b>28</b> - A flame whose temperature reaches to 3500° C. ()
<b>29</b> - A gas that is used for diving and climbing. ()
<b>30</b> - It consists of two hyd <mark>rogen atoms and o</mark> ne Oxygen atom. ()
<b>31</b> - A gas that combines with O2 to produce a flame with high temperature reaches to
3500°C. ()
<b>32</b> - The gas that represe <mark>nts 0.03% o</mark> f atmospheric v <mark>olume. (</mark> )
<b>33</b> - A gas that is produce <mark>d during</mark> burning and respiration of living organisms. ()
<b>34</b> - The chemical substance that is used to detect (test) the presence of CO2 gas.
()
<b>35</b> - The chemical substance that is added to calcium carbonate during the preparation of
CO2 gas. ()
<b>36-</b> The gas that doesn't burn and doesn't help in burning and is used in making fire
extinguishers . ()
<b>37</b> - A gas that is used in making soft drinks and bread. ()
<b>38-</b> A gas that contributes in the composition of proteins and the tissues of living organisms.
()
<b>39-</b> The scientist who discovered N2 gas. ()
<b>40-</b> A gas is used in filling car tires and some lamps. ()
<b>41</b> - A gas is called silent killer. ()
<b>42</b> - A system that consists of the brain, the spinal cord and nerves. ()
<b>43</b> - It contains a nucleus, cytoplasm and plasma membrane. ()
<b>44-</b> They are branches extending from the neuron's body. ()



45-	The connection between the dendrites ()
46-	It is a cylindrical axis covered with a fatty layer and is called myelin sheath. ()
47-	They are nerve endings connect to muscles or form a synapse with other neurons.
	()
48-	It consists of the brain and spinal cord. ()
49-	The main control center in your body that directs and coordinates all the processes,
	ideas, behaviors and emotions. ()
50-	It is a bony box in which the brain is located. ()
51-	It is a nerve block containing millions of nerve cells. ()
52-	It consists of cerebrum, cerebellum and medulla oblongata. ()
53-	It is the outer surface of cerebral hemispheres that has a grey color. ()
54-	It contains the centers of thinking and memory and controlling the voluntary movement
	of the body. ()
55-	It lies at the back area of the brain below two hemispheres. ()
56-	It is maintaining the balance of the body during movement. ()
57-	Linked to the brain through the spinal cord and is responsible for involuntary actions.
	() [ [ [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [
	Consists of a grey matter in the form of H letter surrounded by the white matter.
	()
59-	Part of the nervous system is responsible for reflex actions. ()
60-	It is the nerves which emerge from the central nervous system. ()
61-	They are 12 pairs of nerves which emerge from the brain. ()
62-	They are 31 pairs of nerves emerge from the spinal cord. ()
63-	Automatic response of the body to different stimuli. ()
64-	The basic structure unit of the nervous system. ()
65-	It is the ability of the organism to change its position. ()
66-	It consists of skeletal and muscular systems. ()
67-	It consists of the skull, Backbone and rib cage. ()



<b>68</b> - It is a part of	f the axial skeleton tha	t consists of 33 vertebr	ae with cartilages between
them. (	)		
<b>69-</b> It consists of	12 pairs of ribs. (	)	
<b>70</b> - It consists of	f the bones of upper a	nd lower limbs. (	)
<b>71-</b> The joints th	at are between the bo	nes of the skull that do	n't allow any movement.
()			
<b>72-</b> The joints th	at allow the movemen	t in one direction. (	)
<b>73</b> - The joints th	at allow movement in	all directions. (	)
<b>74</b> - The location	that two bones meet	each others. (	)
Choose the corre	ect answer:		
1. The device of mea	asuring weight is		
a) one arm scale	b) two arm scale	c) digital scale d)	spring scale
2. An object whose	weight is <mark>20 Newton o</mark>	n <mark>earth, its m</mark> ass <mark>i</mark> s equa	al to
a) 2kg	b) 10kg	c) 20kg d)	200
3. The weight of a bo	ody its mass 200 gm or	<mark>n ear</mark> th surface nearly e	quals
a) 2 Newton	b) 20 Newton	c)200 Newton	d) 2000 Newton
4. The mass of a boo	dy on the moon surface	e is 10 kg, so its mass or	n earth surface equals
a) 10 kg	b) 10 Newton	c) 60kg	d)60 Newton
5. From the tools of	measuring weight is		
a) kilogram	b) double pans ba	alance c)Newton	d) spring scale
6. The Newton is no	early equals weight of a	a body its mass is	
a) 1 gm	b) 10gms	c) 100gms	d) 1000gms
7. The mass of half I	iter of water equals		
a) 5gms	b) 50gms	c) 500gms	d) 5000 gms
8. Which of the follo	owing is faster in cond	ucting heat?	
a) aluminum	b) copper	c) iron	d) glass



Newton, what is the we		ain neight from the earth arth surface	surrace equals 70
a) 68 Newton	b) 69 Newton	c) 70 Newton	d) 71 Newton
10. From the substances	s which are bad conduc	tors of heat are	
a) iron & aluminum	b) copper &glass	c) glass& wood	d) aluminum &copper
11. The operation of the		, -	,
a) the change of gases' v			
	11 11/1		
b) the change of liquids'			
c) the change of gases' r	mass with the change in	tempe <mark>rat</mark> ure.	
d) the change of liquids'	mass with the change	in temperature	
12. The clinical thermon	neter is different from t	the Celsius thermometer	in
a)The type of matte <mark>r p</mark> r	esents in the reservoir.	b) The presence of	constriction in the
capillary tube. c) The typ			ne effect of change
temperature on the pre	sent liquid volume.	rtual Scho	
13. All the following from	m the properties of me	rcury as thermometric su	bstance except
a) good conductor of he	eat.	b) the expansion is	regular
c) give limited extent to	measure the temperat	ure. d) not adhere to	the walls of capillary
tube.			
14. Which of the followi	ng gases have great pe	rcentage in the atmosph	eric air?
a) oxygen	b) nitrogen	c) carbon dioxide	d) water vapor
15. Oxygen presents in t	the atmosphere in gase	ous state in form of mole	ecules structure
a) O k	o) O2	c ) O3	d) O4



16. Re	espiration &comb	oustion	processe	es consui	ne gas.		
a) oxy	gen	b) nitr	ogen		c) carbon dioxide	d	) argon
17. Hy	ydrogen peroxide	decon	nposes ir	n presenc	ce of manganese di	oxide to	
а) оху	gen &hydrogen	b) c	xygen &	water	c) hydrogen & wa	ter d)	) hydrogen
&mar	nganese						
18. A	gas which is use	d with a	acetylen	e in weld	ing metals is		
a) ox	ygen	b) n	itrogen		c) carbon dioxide	d	) hydrogen
19. Th	ne maximum and	minim	um grad	uation of	the clinical thermo	ometer is b	etween:
a) 35:	42 ®c	b) 35: 4	45 ®c	c) 3	32:42 <sup>®</sup> c		d) 32: 45 <sup>®</sup> c
20. Th	e planet on which	the bod	ly weight	equals 6	times as its weight or	n the moon	is
a) ma	rs	b) ear	th	c) J	upiter	d)saturn	
21. Th	e weight (Newton)	= The r	m <mark>ass (kilo</mark>	gram) x			
a) 10		b) 100		c)1	.000	d)110 <mark>0</mark>	
22. If	the body weight o	n earth	surface e	quals 6 N	ewton, its weight on	moon surfa	ce equals.
a) 1/2	2	b) 1	otiai	(c)	rtual Sc	d) 1/6	
Com	plete the fol	<u>lowin</u>	g sen	<u>tences</u>	:		
1-	Mass is measured	by usir	ng	, where	as weight is measure	d by using	
2-	2- If the weight of	f iron ba	all is 200 f	Newton, s	o it's mass equals		
3-	3- The measuring	unit of	massis	or	whereasthe	measuring	unit of weight is
4-	4- Thede	creases	when the	e distance	between an object	& the center	r of the earth
	increases.						
	is the for	·		•			
6-	•	•			&	•	
/-	Mass is a constar	าร งลไมค	א n∩t att	ected by			



8 is the amount of matter in an object.
9is the measuring unit of mass & equals to the mass of one paper clip.
10is the measuring unit of mass & equals to the mass of one liter of water.
11- Newton is the measuring unit of weight which equals weight of body its mass
grams.
12 &are examples of good conductors of heat.
<b>13-</b> ,
<b>14-</b> We useto sterilize the medical thermometer before using.
15- Celsius thermometer is used in measuring, whereas the medical thermometer used in measuring
<b>16-</b> &
<b>17</b> &are <mark>some usages</mark> of good conductors of heat.
<b>18-</b> The scale ofthermometer starts at 35°C and ends at 42°C, while the scale of Celsiu
thermometerstarts at & ends at
<b>19</b> - Thethermometer is used to measure the water temperature.
20conducts heat faster than Aluminum.
<b>21</b> - Each degree in the medical thermometer is divided intoparts so each part equals
degree.  22- Air isconductor of heat.
23- Materials that let heat flow through are called
<b>24-</b> Heat is a form of, that transfers from the body of temperature to the body of
temperature.
<b>25-</b> The devices that are used to measure temperature are called
26- Materials that don't let heat flow through are called
27- The scientific principle that is used in making thermometer is that liquidsby heating
by cooling.
28- Freezing point of water is, while its boiling point is
29- There is a constriction inthermometer.
<b>30-</b> The temperature of a healthy human body is
31- Heat is used in industry and preparing of



32-	Oxygen gas is produced plentifully fromduringprocess .
33-	From uses of oxygen gas areand
34-	Oxygen gas of the atmosphere is consumed during andprocesses .
35-	Respiration and combustion processes consumegas and producegas.
36-	By adding hydrochloric acid to calcium carbonategasis obtained which can be
	used in
37-	Medulla oblongata is responsible for,Whileis responsible for keeping
	the body balance.
38-	When a glowing magnesium ribbon is placed in a jar containsgas then adding
	drops of water ammonia gas is evolved.
39-	The human skeletal system consists ofand
40-	The axial skeleton in the man consists ofandand
41-	The number of nerves in human body is
42-	The thoracic cage in the man consists ofof ribs, while the back bone consists
	ofvertebrae.
43-	The gas which is used to fill some types of lamps is, whileis mainly used in
	photosynthesis process.
44-	The number of cranial nerves ispair.
45-	Nitrogen is used in the manufacture ofand
46-	from immovable joints, while from freely movable joints.
47-	The upper limbs consists of and and
48-	The lower limbs consists of and and
49-	Locomotary system consists of &
50-	Skeletal system consists of &
51-	Types of joints are & &
52-	&
53-	& are from involuntary muscles.
54-	exist between 2 bones, whileconnect muscles with bones.



#### Give reason for:

- 1- The weight of an object is affected by its mass.
- 2- There is a relation between mass & motion.
- **3-** The weight of a person on the earth is larger than its weight on moon.
- **4-** An object's weight is affected by the distance being away from the center of the earth.
- 5- The moon's gravity is less than earth's gravity.
- **6-** Double glassed windows are used in cold countries.
- 7- Cooking pots are made of aluminium.
- **8-** We wear wool clothes in winter.
- 9- Spaces are left between railways.
- **10** Mercury is preferred in manufacturing of thermometers.
- 11- The balance scale must be on horizontal stable surface.
- 12- The wire of spring balance expands when a body is hanged to it.
- **13-** The weight of the body on earth differs from its weight on another planet.
- **14-** The copper conducts heat faster than aluminum.
- **15-** In clinical thermometer, there is a constriction above mercury reservoir(bulb).
- **16-** The ratio of oxygen is constant in air.
- **17-** Ozone gas is very important in nature.
- **18-** Manganese dioxide still without change in quantity and properties during preparation of oxygen.
- **19** Oxygen cylinders are used during mountain climbing.
- **20** Oxygen is collected by down displacement of water.
- **21-** The medical thermometer must be put in ethyl alcohol before using.
- **22-** We must shake the medical thermometer well before using.
- **23-** We can't measure the temperature of objects by touching.
- **24-** Mercury gives a wide range to measure the temperature.
- **25-** The mass of a piece of cleansing wire increases after burning.
- **26-** Mountain climbers carry Oxygen Cylinders.
- **27-** Using oxy- acetylene flame in cutting metals.



- **28-** Ozone layer has a great importance.
- 29- The atmosphere has a great importance for the continuity of life.
- **30-** Clear lime water is used to detect the presence of CO2 gas.
- **31-** CO2 gas is used in extinguishing fires.
- **32-** Yeast is added to the dough in making bread.
- 33- The environment suffers from the increase of CO2 gas.
- **34-** CO2 gas has a great importance for continuity of life.
- 35- The increase of CO2 gas amount is harmful.
- **36-** Drinking too much of soda water is unhealthy.
- **37** CO2 gas is called silent killer.
- 38- Nitrogen is used in filling car tires.
- **39-** The main source of N2 gas is the air.
- **40-** We prepare N2 gas by passing air across the sodium hydroxide or potassium hydroxide.
- **41** We prepare N2 gas by passing air across hot copper wire.
- **42-** Nitrogen contributes in the composition of all living tissues.
- 43- Nitrogen is used to store petroleum.
- 44- Damage of the medulla oblongata causes death.
- **45** The brain is located inside the skull & the spinal cord extends through the inside of back bone.
- **46-** Withdrawal of the hand quickly when it touches a hot surface.
- **47-** Backbone consists of 33 vertebrae with cartilages between them.
- **48-** The presence of brain inside the skull.
- **49-** The presence of spinal cord inside the backbone.
- **50-** Ribcage is very important for human body.
- **51-** The upper limbs are very important.
- **52-** Lower limbs are very important.
- **53-** Skull joints are from immovable joints.
- **54-** Knee joints are from slightly (limited) movable joints.



**55-** Wrist & thigh joints are from freely (wide) movable joints.

#### **Correct the underline words:**

- 1- Weight is the amount of matter in an object.
- **2-** All matters have <u>weight</u> whatever their shapes, their place or their physical states.
- **3-** The mass of a piece of stone on the earth's surface is <u>smaller than</u> its mass on the moon's surface.
- 4- Gram is the only unit for measuring mass.
- 5- <u>Kilogram</u> equals the mass of one paper clip.
- **6-** Gram is used to measure very big masses.
- 7- <u>Ton</u> is suitable for measuring mass of jewellery, while <u>gram</u> is suitable for measuring mass of vegetables.
- **8-** Sensitive two arm scale is used to measure big masses as vegetables.
- **9-** The reason of object's falling downward earth is mass.
- 10- Mass is the gravitational force by which a body is attracted to the earth.
- **11-** The effect of weight is directed towards the <u>upper</u> of the earth.
- 12- On the earth, there is weightlessness, but in space objects have weight.
- 13- Newton is the measuring unit of mass.
- 14- Gram equals the weight of an object whose mass is 100 grams.
- **15-** When the mass of two big oranges equals 500 grams, so their weight equals <u>6Newton</u>.
- **16-** The weight of any object can be measured by the balance scale.
- 17- The extension of the wire of the spring scale equals the mass of the hanged object on it.
- **18-** By increasing the mass of the piece of stone, its weight decreases.
- **19-** Weight is <u>inversely</u> proportional to mass.
- **20-** Mass = weight  $\times$  10
- **21-** When the mass of a toy car equals 1 kilogram, so its weight equals 300 Newton.
- **22-** When the weight of a chair on earth's surface is 12 Newton, so its weight on the moon's surface is 6 Newton.
- **23** When the distance between an object and the center of its planet <u>increases</u>, its weight increases, as the gravitational force <u>increases</u>.



- **24-** Heat is a form of energy that transfers from the object of lower temperature to the higher one.
- 25- People wear heavy clothes in winter to decrease their feeling with heat.
- **26-** All materials are good conductors of heat.
- 27- Touching a cup of hot water causes the transfer of heat from you hand to the cup.
- 28- The measuring devices of temperature are scales.
- 29- The degree of hotness or coldness is heat.
- 30- Copper, iron and air allow heat to transfer through.
- **31** Air is a good heat of conductor.
- **32** Plastic, paper and wood are good conductors of heat.
- **33** Copper is bad conductor of heat.
- **34** Aluminum is a poor conductor of heat.
- **35** Water is used in the manufacturing of insulating glass windows as it's an insulator.
- **36-** Materials that conduct heat are called heat <u>insulators.</u>
- **37** All materials have the same ability to conduct heat.
- **38** Aluminum conducts heat <u>faster</u> than copper.
- **39** Cooking pots are made of wood.
- **40-** Handles of cooking pots are made of copper.
- **41-** Wood is a good conductor of heat.
- **42-** Good conductors of heat are used in making heavy blankets and woolen clothes.
- **43** We can measure the temperature accurately by touching.
- **44-** The idea of making thermometer depends on the expansion and contraction of <u>solids</u> by changing the temperature.
- **45-** The medical thermometer has <u>a capillary tube</u> to prevent mercury from going back to the mercury bulb.
- **46-** The scale of medical thermometerstarts from 0°c to 100°C.
- **47-** Each degree in the medical thermometer is divided into <u>3 parts</u>.
- **48-** you shouldn't sterilize the medical thermometer before using.



- **49-** The Celsius thermometer is used for measuring the temperature of human being.
- **50-** You must not touch a broken thermometer because mercury is hot.
- **51-** The normal temperature of the healthy person is <u>35°C</u>.
- **52-** The melting point of ice is <u>100°C</u>
- **53-** The molecule of ozone gas consists of four oxygen atoms.
- **54-** Nitrogen peroxide gas is decomposed to water and nitrogen in the presence of manganese dioxide.
- **55-** The joints of the skull are from limited movement joints.
- **56-** Carbon dioxide is from the component of explosives.
- **57** Nitrogen gas is used in putting off fires.
- **58-** A black precipitate is formed when CO2 gas is passed in lime water.
- **59-** The nodular bacteria fix air Oxygen in the roots of legumes plants.
- **60** Nitrogen is characterized by <u>easily</u> dissolving in water.
- 61- Oxygen is called azote which means lifeless gas.

### Put (v) or (x) and correct the false one:

1-All materials are good conductor of heat. ( )
2-Copper is a good conductor of heat. () Virtual School
3-Cooking pots are made of wood. ( )
4-Handels of cooking pots are made of copper. ( )
5-Aluminium is a poor conductor of heat ( )
6-The Celsius thermometer is used for measuring temperature of human. ( )
7-The scale of medical thermometer starts from zero until 100 Celsius degree.



8-The medical thermometer is used for measuring temperature of liquids.
9- There is a constriction above the bulb in Celsius thermometer.
10-The used liquid in the medical thermometer is mercury.
11- The scale of Celsius thermometer starts from 35 until 42 Celsius degree.
12- Wood is a good conductor of heat. ( )
13-Heat transfers from a cold object to a hot object. ( )
14-The mass of a body changes as its location changes. ( )
15-The digital balance is used in measuring weight. ( )
16- Aluminum conducts heat faster than copper. ( )
17-one liter of water is equivalent to kg. ( )
18-Nitrogen gas represents 21% of the volume of the atmosphere. ( )
Problem:
<u>Problem (1)</u> :-
If an object's mass on earth = 30 kg
Calculate:- 1- It's mass on Moon 2- It's weight on earth. 3- It's weight on Moon



### Problem (2):-

If your weight on earth = 600 Newton.

Calculate your weight on the moon.

### Problem (3):-

If an object's weight = 20 Newton. Calculate it's mass.

**Problem (4):** If an object's mass = 200 gm. Calculate it's weight on both earth and moon surfaces.





# **Questions from exams**

## 1-write the scientific term:

-A gas participate in photosynthesis process. {} 2019
-A tool that used to measure the temperature of human body. {} 2019
-A spontaneous response from the body to different stimuli. {} 2019
-A gas does not burn, but help in burning. {}
-Joints that allow moving in different directions. {}
-An organ that consist of gray matter that has H shape surrounded by white matte {} 2019
-The skeleton which includes upper & lower limbs. {} 2018
-The flame that is used in cutting & welding metals. {} 2018
A tool used to measure bo <mark>dy weight</mark> . {} 2018
-Attraction force of earth to the body. {} 2017
-Material does not allow the flow of heat through it. {
-Automatic response of the body toward stimuli. {}
-A building unit of the nervous system. {} 2016
-A gas its molecule consist of three oxygen atoms. {} 2016
-The amount of matter that the object contains. {} 2016
2-compelet:
is measured by balance scale, whileis measured by spring scale 2019
-The measuring unit of mass is, while the measuring unit of weight is
-The axial skeleton of human consist of
-The graduation of Celsius thermometer begins from temperature°c and ends at temperature°c 2018,2016
-From the freely movable joints are



-Nitrogen represents ......% while oxygen represents ......% from atmospheric air. 2016

## 3-What happens:

-Injury in medulla oblongata. 2019

-Putting medical thermometer in boiling water. 2018

## 4- compare:

-Between heat conductors & heat insulators

2019

## 5-mention one importance use of :

-Cerebellum 201<mark>6, 2018</mark>

-Skull 2018

- Celsius thermometer 2018

-Free movable joint 2018

## 6-prblems:

- Calculate the mass an object whose weight 20 newton on the earth. 2018
- An object whose mass on earth 0 6kg calculate the weight on the earth .
   2019
- If mass of an object on earth =30 kg calculate the weigh on earth & weight on the moon. 2016

## 7- correct the underlined ward: 2016

- -The scale of Celsius thermometer starts from 35°c to 40°c.
- -Oxygen is used in filling tires.

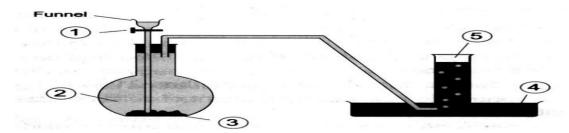


- -The number of spinal nerves is 63 nerves.
- -Weigh of an object on moon= $\frac{1}{5}$  of its weight on the earth.
- -The spinal cord is responsible for keeping human body balance.

Write the labels in which the numbers (1, 2, 3 and 4) refer to.



4..... 2016



This is preparation of .....

## 8- Give the reasons:

-Handles of cooking pans are made of wood or plastics. 2019

-Carbon dioxide gas is used in fire extinguishing. 2019

-Damage of medulla oblongatta cause death. 2019

-The percentage of oxygen gas in air always fixed. 2018

-Mercury is used in medical thermometer. 2018

-The brain located inside the skull, spinal cord extends through the backbone. 2017

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### Put true or false and correct the false one:

-The medical thermometer is used to measure temperature of liqu	ıid .	{	}
			2019
-the skull joints are from widely movable joints.	{	}.	
		20	19
-the handle of cooking pans are made of aluminum.	{	}	
		2019	
-the vertebral column is consist of 23 bony vertebrae. {		}	
		2019	
-the shoulder joint is considered free movable joint.	{	}	
		2018	
-the spinal cord is a grey inte <mark>rnal ma</mark> tter that appear in shape H.	{	}	
		2	018
-the medulla oblongata is res <mark>ponsible for regul</mark> ating heart beats.		{ }	
			)18
-the ozone molecule consist of 2 atoms of oxygen{	no		
		2018	
-the cerebellum is responsible for the involuntary body process.		{	}
		201	L2 , 2017
-the main source of nitrogen gas is atmospheric air. {	}		
		2017	
-the mass of the body changes from one place to another on the e	arth.	{	}
			2017
-The cooking pots are made of plastic. { }			
		2017	
-oxygen gas represents 78% of air atmosphere. {	}		

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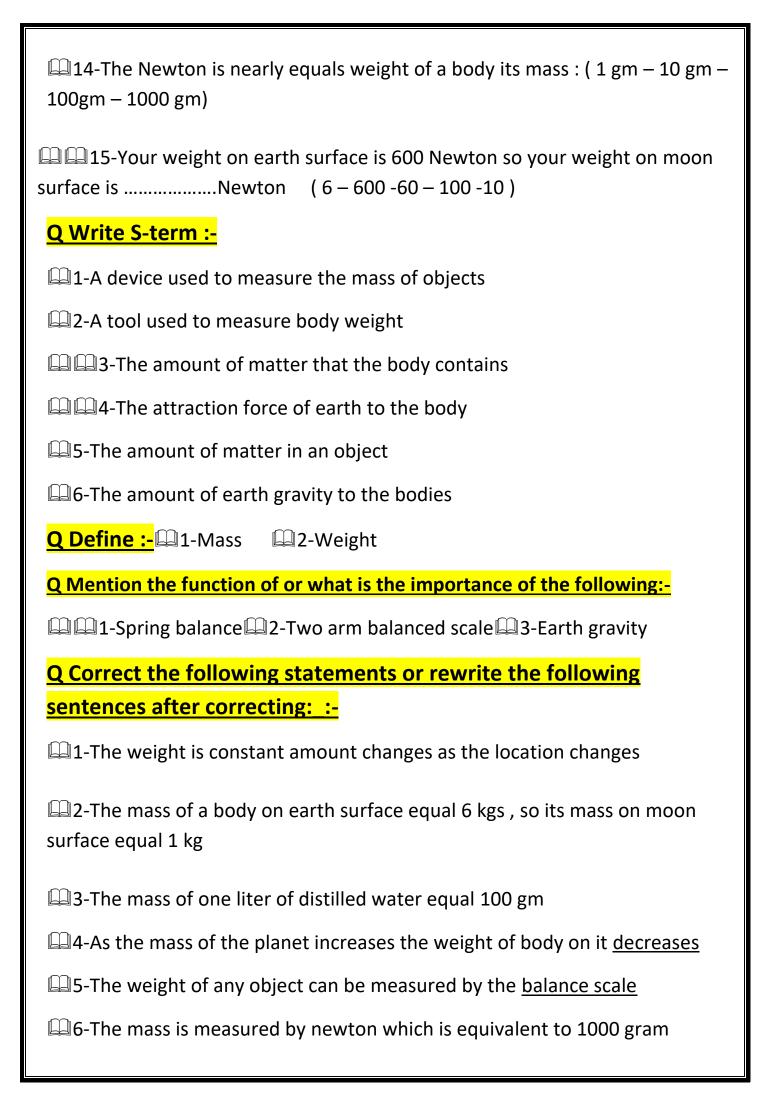
### **Choose the correct answer:**

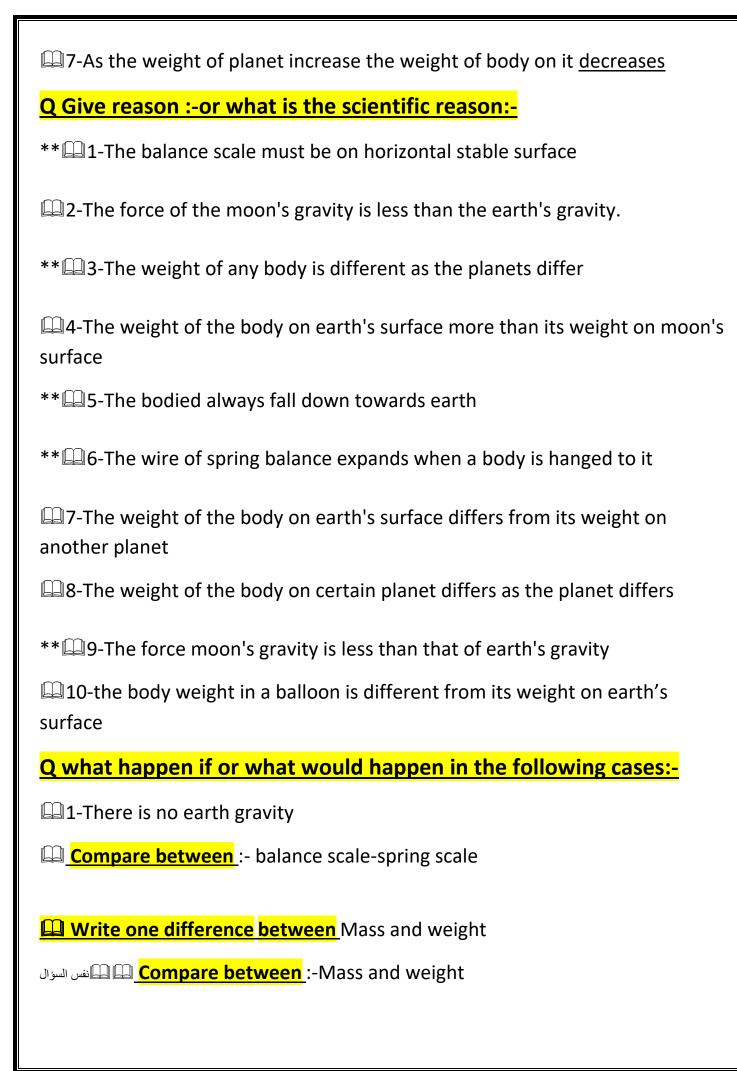
-the number of vertebrae in the vertebral column is
{32,33,34,35} 2019
-oxygen gas is collected by displacing
{ air upward , air downward , water upward , water downward } 2019
-the fastest metal in conducting heat is
{aluminum, copper, iron, silver} 2018
-the center of thinking and memory is located
{medulla oblongata , cerebellum , 2 cerebral hemispheres , spinal cord} 2019 , 2016
-the percentage of nitrogen gas in atmosphere represents
{78% <mark>, 21% ,</mark> 0.003% , 1% } 2018
-the rib cage in human body is consists of pairs of ribs.
{ 11 , <mark>12 , 13 , 14 } 2018</mark>
-the gas that turns lime water turbid is
{nitrogen , oxygen , carbon dioxide , ozone } 2018
-the mass is measured by using
{ruler, sensitive balance, spring balance, thermometer} 2018
-the gray matter in the spinal cord takes the shape of Letter.
{H , A , F , D} 2017
-the gas which mixed with a acetylene gas to cut and weld metal.
{ nitrogen , oxygen , carbon dioxide , hydrogen } 2017
-the number of cranial nerves are pairs.
{31 , 21 , 12 , 15 }
-the liquid that used in the tube of medical thermometer
{ mercury , bromine . water , chloric acid} 2017

## 1-WEIGHT – MASS

Q Complete:
1-Theis the measurement unit of mass ,theis the measurement unit of weight.
2-The mass is measured by unit ,and the weight is measured byunit.
3-The mass is measured byand the weight is measured by
4-The factors affect the weight of the body depend on
5-The weight of the body on moon surface equalof its weight on earth's surface.
6-The weight of the body on earth surface increase as theincrease
7-As the mass of the planet on which the body exist, theof the planet increases andof body increase.
8-The weight is
9-The instrument which in the measuring mass iswhile the instrument which in the measuring weight is
10-The attraction force of earth for a body is calledand it increases asincrease.
11-The weight of the body is measured bybalance.
Q Choose the correct answer :-
1-The mass of half liter of water equal :-(5 gm – 50 gm – 500 gm – 5000 gm)
2-Newton equals the weight of an object whose mass is Gram
(1-20-100-1000)

```
3-....is the measuring device of weight
(spring scale – balance scale – one arm scale)
4-If the weight of a body is 20 Newton, its mass equals.....
(2 \text{ kg} - 20 \text{ kg} - 200 \text{ kg} - 2000 \text{ kg})
5-The weight of an object on the ......planet equals 6 times its weight on the
moon's surface (mars – earth – Jupiter)
4 Given the weight of the body on earth surface 6 Newton, so its weight on
                      (1 \text{ kg} - 1 \text{ Newton} - 6 \text{ kg} - 6 \text{ Newton})
moon surface equals
27-From the measuring unit of weight
(Gram – litre – Newton – Kilogram)
28-The weight of the body is measured by ...balance
(spring – double pan – sensitive – all the previous)
9-The weight of a body its mass 200 gm on earth nearly equal .............
Newton (2 - 20 - 200 - 2000)
10-The planet on which the body weight equals 6 times as its weight on the
moon is (mars -earth- Jupiter)
\square 11-The weight (newton) = the mass (kilogram)×..... ( 10 - 100 - 1000)
12-The mass of a body on the moon surface is 10 kg, so its mass on earth
surface equal: (10 kg - 10 Newton – 60 Newton – 60 kg)
13-From the tools of measuring weight (kilogram – double pan balance –
Newton – spring balance)
```





### **2-HEAT CONDUCTION**

## Q Complete:-.. 1-The heat is a form of the ........ 2-The temperature is considered as an indicator that helps us to express .......... and .......of the body 3-We measure temperature by using ............ 4-....., , .....and ...... are good conductor of heat 5-....., , .....and .....are bad conductor of heat 6-All metals are ..... conductors of heat 27-.....conduct heat faster than aluminium 8-....and .....are some usage of good conductors 9-....., .....and .....are some usage of bad conductors 10-From the examples of substances which are good conductors of heat <u>.....</u> and <u>.....</u> 11-From the examples of substances which are bad conductor of heat <u>.....</u> and <u>.....</u> 13-The good conductor substances are the substances which .....as ••••••

<u>Q Choose the correct answer:-</u>
1-All the following from substances which are good conductors of heat except (Aluminum and iron – copper and iron -glass and wood-Aluminum and copper)
2is from the bad heat conductor substances.
( copper – iron- wood)
3-Which of the following is faster in conducting heat (aluminium – iron – copper – glass)
4-The best metal in conducting heat is( aluminum – copper – iron – wood)
5-Which of the following metals in more heat conductor?
( aluminum – copper – iron)
6-From the substances which are bad conductor of heat ( iron and aluminium – copper and glass – glass and wood – aluminium and copper )
Q Write S-term :-
1-Materials that let heat flow through
2-The substances that allow heat to pass through
3-The substance that not allow heat to pass through
4-The materials that don't let heat flow through
5-An indicator helps us to express the state of the body from the point of hotness and coldness
Q Define:-
1-Heat 2-Temperature
☐3-The good heat conductor substances ☐ heat conductor

4-The bad heat conductor substances heat insulator
Q Mention the function of or what is the importance of the following (usage
of):- or What is the main use of :-
1-Plastic in the manufacture of the handles of cooking utensils
2-The plastic handles of cooking pots
3- good conductors of heat
4- bad conductors heat insulator
Q put ✓ or × :-
1-heat transfer from cold object to hot object
2-All materials are good conductors of heat
3-Aluminium is bad conductor of heat
4-the different metals transfer heat by the same rate
5-Aluminium conducts heat faster than copper
6-Cooking pots are made of <u>plastic</u>
7-Handles of cooking pots are made of <u>copper</u> .
8-wood is a good conductor of heat.
Q Correct the following statementsorrewrite the following sentences after
<u>correcting:-</u>
1-Copper from substances which the heat cannot pass through it
2-The different metals transfer heat by the same rate.

#### Q Give reason :-or what is the scientific reason:-

- \*\*1-wood is considered as a heat insulators, while copper is a heat conductor
- 2-Plastic is different from copper in conducting heat
- \*\* 3-Cooking pots are made of aluminum while its handles are made of plastic or wood
- 4-The handles of cooking pots are made of wood or plastic while the cooking pots are made of aluminum
- 5-Copper is consider from good conductor of heat while wood is consider from bad conductor of heat
- 4 G-Aluminum is used in manufacturing of cooking pans
- \*\* 47-The copper conduct heat faster than aluminum

#### Q what happen if or what would happen in the following cases:-

- 1-All substances that the man uses are good conductor of heat
- Compare between :-Bad heat conductor substances and good heat conductors substances.

#### Join

(A)	(B)
a. Copper b. Plastic c. Mercury d. Alcohol	<ul> <li>1- Is bad conductor of heat</li> <li>2- Is good conductor of heat</li> <li>3- Is a liquid used in manufacture of thermometers</li> <li>4- Is a liquid used in sterilizing of thermometers before usage</li> </ul>

### **3- THERMOMETER:-**

### **Q Complete:-..**

1- The main idea of making thermometer is changing theof liquid by changing the
2andare from the kinds of thermometers.
3-The types of thermometers areand
4-From the types of thermometers areand
5- The thermometer is a
6- There is a construction in thethermometer.
7-The scale of medical thermometer starts fromto
28-The clinical thermometer is graduated from to
9-The graduation of clinical thermometer begins from and ends at
10- The Celsius thermometer is used in measuring, whereas the medical thermometer is used in
11- Water is freezed at <u>0°c</u> and boiled at <u></u>
12-The main idea of thermometer action is the change of theof the liquid inside as thechange.
13-The temperature considers as indicator help us to expressand of the body.
14-The clinical thermometer is graduated from to
15-Thethermometer is used to measure the water temperature.

Q Choose the correct answer:-
1-The operation of thermometer depend on the idea of (The change of gases volume with the change in temperature – The change of liquids volume with the change in temperature – The change of gases mass with the change in temperature – the change of liquid mass with the change in temperature )
2-The maximum and minimum graduation of the clinical thermometer is between(35:42 - 35:45 - 32:42 - 32:45)
□3-The maximum and minimum graduation of the medical thermometer is between(35:42 - 35:45 - 32:42 - 32:45)
4-All the following from the properties of mercury as thermometrical substance except (good conductor of heat – its expansion is regular – give limited extent to measure the temperature – not adhere to the walls of capillary tube)
5-The clinical(medical) thermometer is different from Celsius thermometer in (The type of matter present in the reservoir – The presence of constriction in the capillary tube – The type of matter used in manufacturing – the effect of change temperature on the present liquid volume)
Q Write S-term :-
1- An instrument used for measuring the temperature
2- A device used for measuring the temperature of human body
3-A tool used to measure human body temperature
4-A device used to measure the temperature of liquids
□ 5-An instrument used in measuring the temperature of liquid material
46-The liquid that is used in making the medical and Celsius thermometer
27-Tools used to measure the temperature.

8-An instrument used for measuring the temperature
9-An indicator helps us to express the state of the body from the point of hotness and coldness
□ Define Temperature
Q Mention the function of or what is the importance of the following or What
<u>is the main use of:-</u>
1-Thermometer.
2-Medical thermometer.
3-Clinical thermometer
4-Mercury in thermometer.
Q put ✓ or ×and correct:-
1-The graduation of clinical thermometer is from 37°c to 45°c and each degree is graduated to ten parts
2-The Celsius thermometer is used for measuring the temperature of human.
3- There is a constriction above the mercury bulb in the Celsius thermometer
,
4- The used liquid in the medical thermometer is <u>water</u>
,
4- The used liquid in the medical thermometer is <u>water</u>
4- The used liquid in the medical thermometer is water  5- The medical thermometer is used for measuring the temperature of liquid
4- The used liquid in the medical thermometer is water  5- The medical thermometer is used for measuring the temperature of liquid  6- Mercury is considered from bad conductor substances
4- The used liquid in the medical thermometer is water  5- The medical thermometer is used for measuring the temperature of liquid  6- Mercury is considered from bad conductor substances  7-Heat transfers from a cold object to a hot object

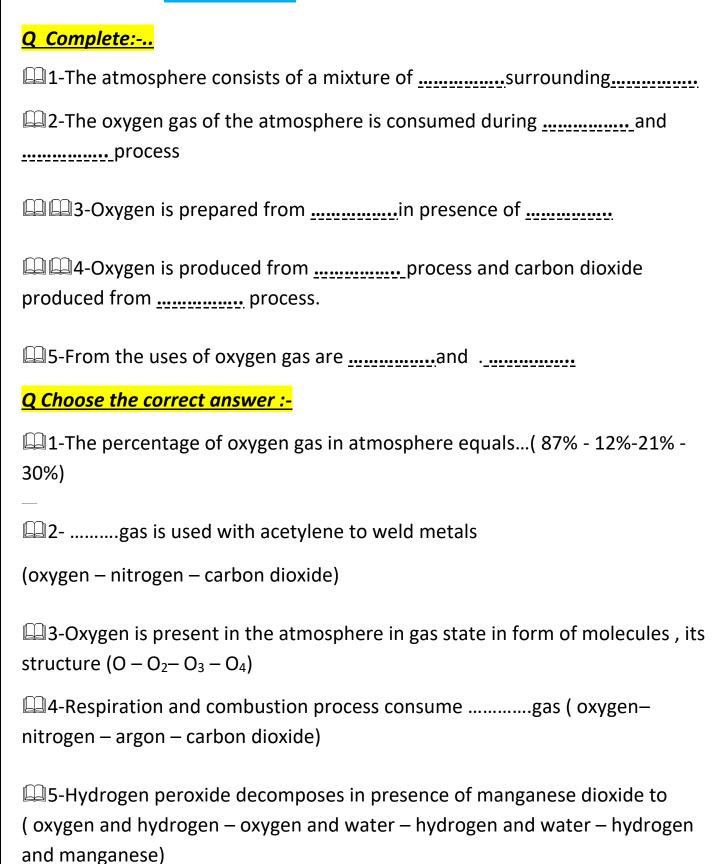
Q Correct the following rewrite the following sentences after correcting: :-
1-The graduated of clinical thermometer is from 37°c to 45°c and each degree is graduated to ten parts
2-The liquid used in clinical thermometer is the alcohol
Q Give reason:-or what is the scientific reason:-
1-There is a constriction above the mercury bulb in the medical thermometer.
In clinical thermometer there is a constriction above mercury reservoir
** 2-Mercury is used in thermometer
3- Mercury give wide range to measure the temperature
4-The clinical thermometer is used in measuring human body temperature while it is not suitable for measuring the liquid temperature.
5-Mercury is used in clinical thermometer
6-Mercury is preferred in manufacture of thermometers
Q what happen when :-
1-A medical thermometer is put in boiled water.
2- There is no constriction in medical thermometer
Q Explain the following:-
1-In the clinical thermometer there is a constriction in the capillary tube
above mercury reservoir

2-The clinical thermometer is not used to measure boiling point of water
Explain the clinical thermometer is not used to measure boiling point of water
3-The mercury is used in manufacture of thermometers
4-The mercury gives wide range to measure the temperature .
What is the role of (function of) mercury in Celsius thermometer
□ Join

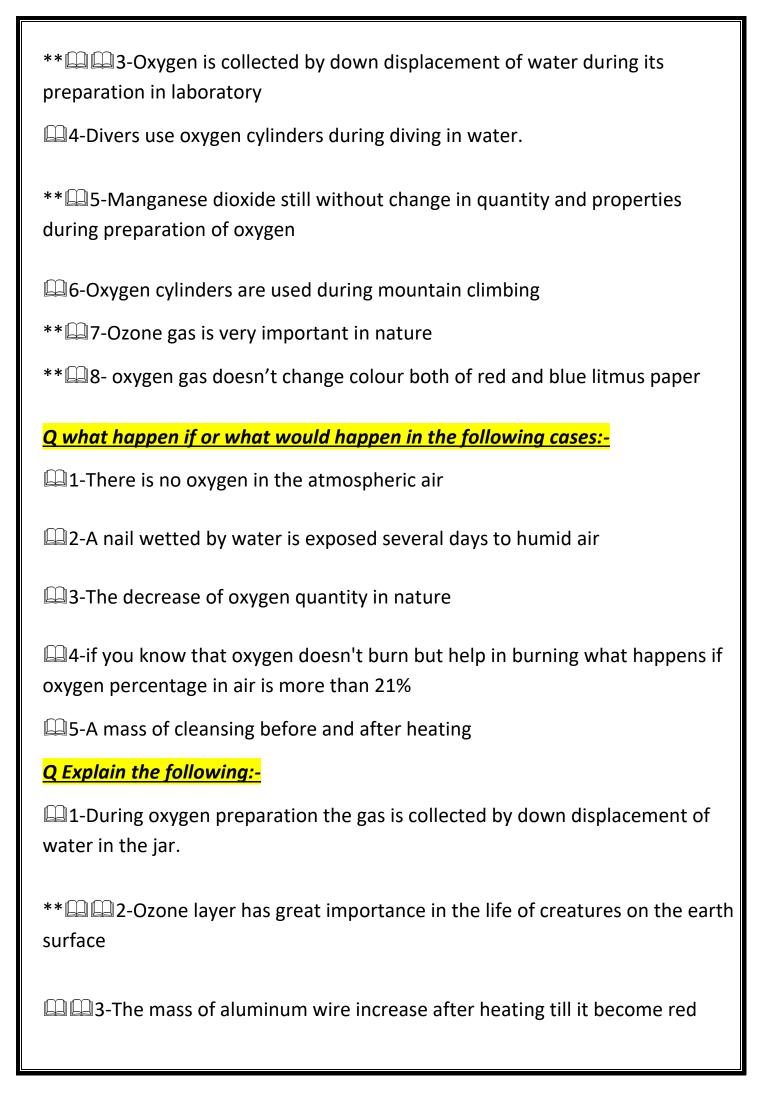
(A)	(B)
a. Gram	1- the measuring unit of weight
b. Kilo gram	2- the measuring unit of temperature
c. Newton	3- the measuring unit of heavy body mass
d. celsius	4- the measuring unit of light body mass

<u>Compare between</u>:- clinical thermometer and Celsius thermometer(usage – structure – used liquid – scale)

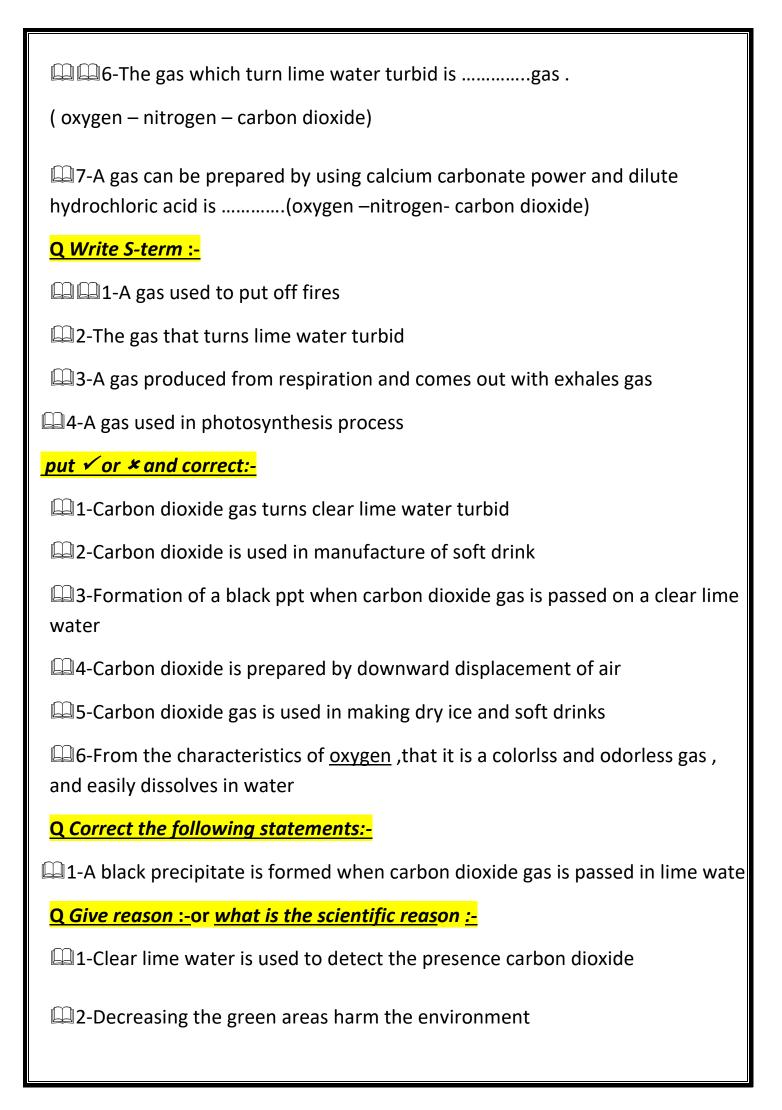
#### 1- OXYGEN:-

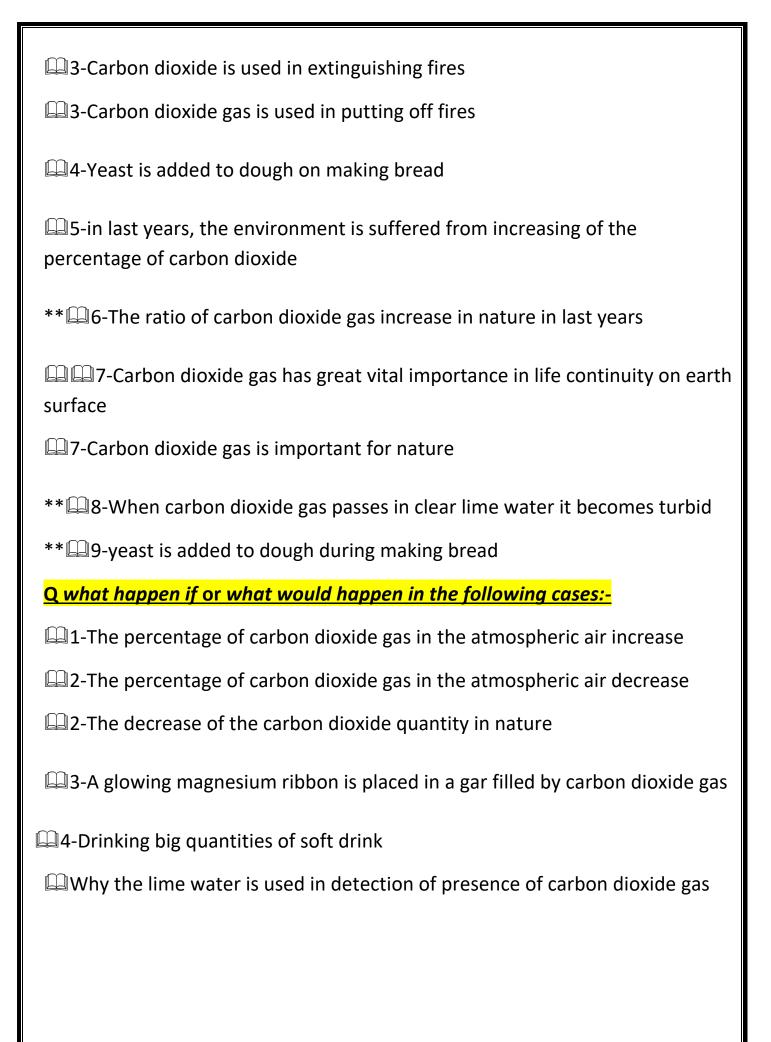


6-Hydrogen peroxide is used in preparation of
( hydrogen – nitrogen – oxygen – carbon dioxide)
7-The gas which is used with acetylene in welding metals isgas (Oxygen- Nitrogen – hydrogen- carbon dioxide)
Q Write S-term :-
1-A gas molecules consist of three atoms of oxygen.
2-A gas used in its preparation hydrogen peroxide
3-A gas its molecule consists of three oxygen atoms and forms a layer of atmosphere
4-A flame used in cutting and welding metals
Q Mention the function of or what is the importance of the following:-
Oxygen gas in nature
Q Correct the following statements or rewrite the following sentences after
Q Correct the following statements or rewrite the following sentences after correcting: :-  1-Oxygen gas not burn and not help burning
<u>correcting:_:-</u>
correcting: :-  1-Oxygen gas not burn and not help burning
correcting: _:-  □ 1-Oxygen gas not burn and not help burning □ 2-The molecule of ozone gas consist of four oxygen atoms
correcting: :-  □ 1-Oxygen gas not burn and not help burning  □ 2-The molecule of ozone gas consist of four oxygen atoms  □ 3-Carbon dioxide gas is essential to form rust
correcting: :-  □ 1-Oxygen gas not burn and not help burning  □ 2-The molecule of ozone gas consist of four oxygen atoms  □ 3-Carbon dioxide gas is essential to form rust  Q Give reason :-or what is the scientific reason or justify:-  □ 1-Oxygen ratio still constant in atmospheric air although a large part of it

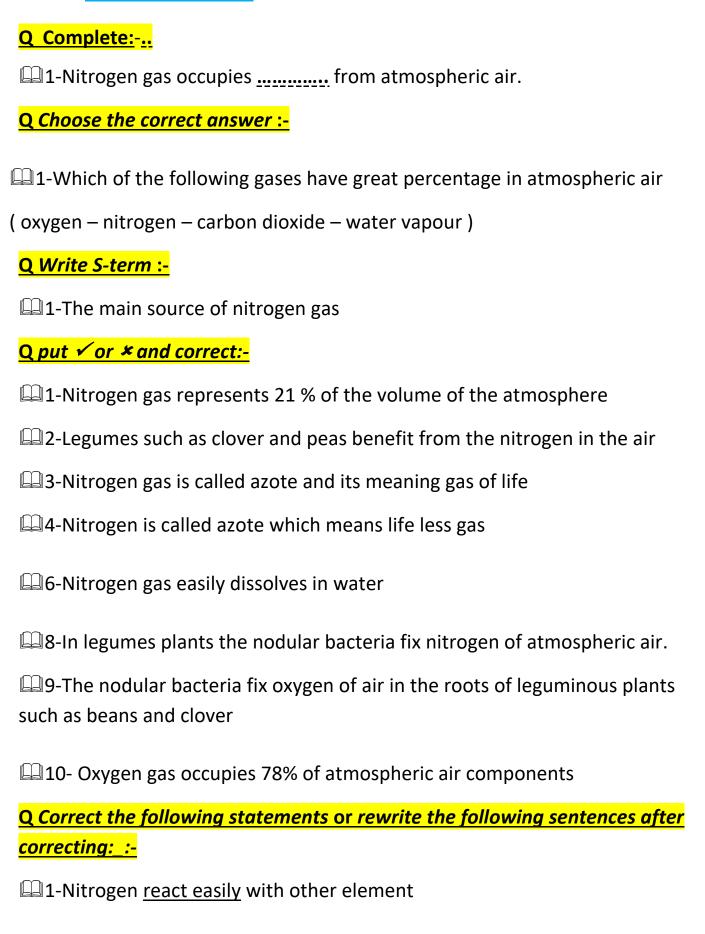


4-Oxidation and combustion
Components of the atmosphere
Q What is the main use of :-
1-The oxyacetylene flame
5-CARBON DIOXIDE:-
Q Complete:
1-Carbon dioxide gas is produced as result of the combustion of
2-The properties of carbon dioxide gas are and
3-The sources of carbon dioxide gas are and
Q Choose the correct answer :-
1-Photosynthesis process in the plant depend on the presence of oxygen – nitrogen – carbon dioxide – ozone)
2-Which of the following can be obtained on adding dilute hydrochloric acid to calcium carbonate powder (nitrogen – oxygen – hydrogen – carbon dioxide)
3-When the exhaled gas passed through clear lime water , it becomes turbid forming substance called
( calcium carbonate – calcium oxide – calcium hydroxide)
4-When a glowing magnesium ribbon is placed in a jar containing carbon dioxide, on the walls of the jar , the element formed is (oxygen – nitrogen – hydrogen- carbon)
5-Carbon dioxide gas is used in ( steel industry – gun powder – ammonia industry – bread)





### **6-NITROGEN**



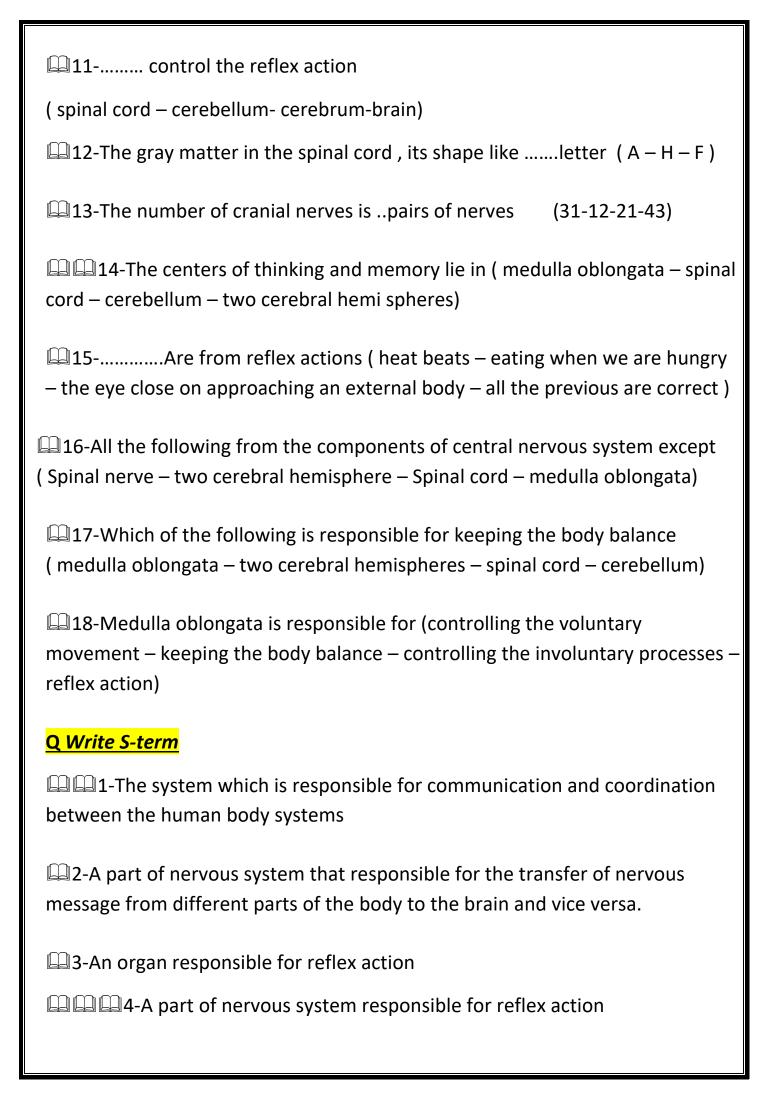
2-Nitrogen is called azote which means <u>life</u> gas
4-The nodular bacteria fix <u>oxygen</u> in roots of leguminous plants 5-Nitrogen gas is used in putting off fires
6-Nitrogen gas dissolves in water
☐7-Nitrogen peroxide gas decomposes to water and nitrogen in presence of manganese dioxide
Q Give reason :-or what is the scientific reason or justify:-
** 4-Nitrogen gas is called azote
27-The main source of nitrogen preparation is the air
Q what happen if or what would happen in the following cases:-
1-Nitrogen is not present in the atmospheric air

### **7- NERVIOUS SYSTEM**

# **Q** Complete:-1-The axon of nerve cell is surround by ...... sheath. 2-The nervous system consists of ..... and ..... system 3-The nervous system consists of two systems are ..... and ..... and ...... system 4-The main center of the control in your body is ..... and it is found inside bony case called ..... 5-The brain consists of \_\_\_\_\_ and \_\_\_\_ and \_\_\_\_ and \_\_\_\_ 6-..... controls the reflect actions (reflexes) 28-The number of cranial nerves is ..... and the number of spinal nerves is ..... 9-The over intake of tea and coffee causes ..... and ...... and ............ 10-The number of nerves in human body is ......

12The brain consists of ...... , ............ and .................

Q Choose the correct answer:-
☐ 1-The nerve cell consists of( nucleus- cytoplasm and plasma membrane – all the all the previous)
2-One of the components of the nerve cell body is the
( blood vessels – myelin sheath – dendrites – synapse)
3-Myelin sheath surrounds the
( nerve cell's axon – cerebellum –spinal cord – cerebrum)
4-The central nervous system consists of
( brain – spinal cord – skull –brain and spinal cord)
5-All the following are from the constituents of the brain except (two cerebral hemisphere – cerebellum – medulla oblongata – spinal cord)
6-The outer surface of the two cerebral hemispheres is called cerebral cortex and its colour is (red- orange – black – grey)
☐ 7-The five sensation centers are in ( two cerebral hemispheres – cerebellum – brain – medulla oblongata)
8-The part which is responsible for keeping human body balance is( two cerebral hemispheres- cerebellum – medulla oblongata – spinal cord)
9-The cerebellum is responsible for (Thinking – the body balance – the reflex action – memory)
10-The part which is responsible for the transfer of nervous massage from different body parts to the brain and vice versa is



5-An organ responsible for reflex actions of the body
6-It consists of gray matter in the form of letter H surrounded by a white matter
7-The building unit of nervous system
8-A structure links the brain with the spinal cord and is responsible for involuntary actions
9-The center of the main control in human body
10-The automatic response of the body when it exposes to outer stimuli as light
11-Spontaneous response from the body to different stimuli
Q Mention the function of or what is the importance of the following:-
1 Nonces 2 Nonces outline
1-Nerves 2-Nervous system
3-Cerebellum 4-Spinal cord
,
3-Cerebellum 4-Spinal cord
3-Cerebellum 4-Spinal cord 6-The two cerebral hemispheres
3-Cerebellum 4-Spinal cord  6-The two cerebral hemispheres  7-Medulla oblongata
3-Cerebellum 4-Spinal cord 6-The two cerebral hemispheres 7-Medulla oblongata 9- thoracic cage 10-rib cage
3-Cerebellum

4-The cerebellum is the center of the main control in your body.
☐ 5-The cerebellum is responsible for keeping the balance of the human body during its movement
$\square$ 6-The location of medulla oblongata is below cerebellum and joins the brain by spinal cord.
☐ 7-The spinal cord is responsible for reflex action in human body
8-The spinal cord controls heart beats
9-There are 12 pairs of spinal nerves and 31 pair of cranial nerves
$\square$ 10- In spinal cord , there are centers responsible for sensory and kinetic responses
11-From the brain, 10 cranial comes out
12-The vertebral column consists of 31 vertebrae
<u>correct</u>
1-The number of cranial nerves is 31 pairs
The location of cerebellum is behind the brain <u>over</u> the two cerebral hemispheres
The <u>spinal cord</u> is responsible for the controlling the involuntary processes in our body
Q Give reason :-or what is the scientific reason:-
1-There is a brain inside the skull
2-The cerebellum has great importance during the movement of the body

3-Spinal cord is surrounded by the vertebrae of the backbone
4-The infection of medulla oblongata lead to death
** 45-The of staying away from tranquilizers and stimulants
@6-We must not taking sleeping tablets otherwise if the doctor advised it.
7-The withdrawal of hand quickly upon touching sharp pin or hot body
8-It advised not to over intake the stimulating substances
Q what happen if or what would happen in the following cases:-
1-When you put your hand suddenly on a hot surface
2-Approaching something to your eyes
3-Sitting for long time infront of the computer
4-Continuous exposure to contaminated air by the factories smoke
5-A man is exposing to noise continuously
6-Continuous exposing to the noise
Taking drugs
The over use of stimulation drugs
The over intake tea and coffee especially during days of exams
🚇 <u>What is the role of ( function of</u> ) the nerve cell in the human body
Mention three examples of reflex actions
<u>Compare between</u> :- central nervous system and peripheral nervous system
Mention two methods to keep nervous system

# 10- Human locomotory system

<u>Q Complete:</u>
1-The human skeletal system consist of and
2-The axial skeleton in the man consists of and and
3-The number of vertebrae of vertebral column is
4-The is the site of two bones meeting
$\square$ 5-The knee joint is considered from $\underline{\dots}$ joint while the femur(hips) joint is considered from $\underline{\dots}$ joint .
Q Choose the correct answer:-
1-The location in which the bones meet together are called
( tendon – joint –humerus)
2-The joint is the location of meeting(two bones – a muscle with bone – two muscles – no correct answer)
3-The skull joints are( immovable – slightly movable –free movable )
4-The joints which allow movement in one direction only are called  Joints.
( immovable – slightly movable – freely movable)
5fix muscles on bones (tendons – joints – muscle fibers – a) and b)
6-The thoracic cage in the man consists of pairs of ribs.
(10-12-11-13)
☐ 7-Which of the following is from slightly movable joints
( Femur – wrist – ankle – knee)
8-Which of the following joints is limited movement" slightly movable "( shoulder – wrist – ankle – elbow)

Q put √or ×and correct:-
1-The joints is consider as freely movable joint
QCorrect the following statements or rewrite the following sentences after correcting:
1-The joints of skull are from limited movements joints
2-The shoulder joint considered from immovable joints
3-The cartilages join between muscles and bones
Q Give reason :- or what is the scientificreason:-
1-There are cartilages between the vertebrae of the back bone
** 2-The rib cage surrounds both the heart and the lungs
** 23-Muscles have great importance in the movement of human body
4-The muscular system is consider as the main engine of our body
5-We cannot control the muscles of alimentary canal , blood vessels and urinary bladder
Q what happen if or what would happen in the following cases:-
1-All the bones of the human body are without joints
2-Hip joint has a limited movement
3-When the shoulder joints becomes from the limited movement joint.
4-The front arm muscle relaxes and the back arm muscle contracts
5-Jumping from high places(violent movements)
46- there are no joints in the skeleton
☐7- the knee joint becomes from wide movement joints

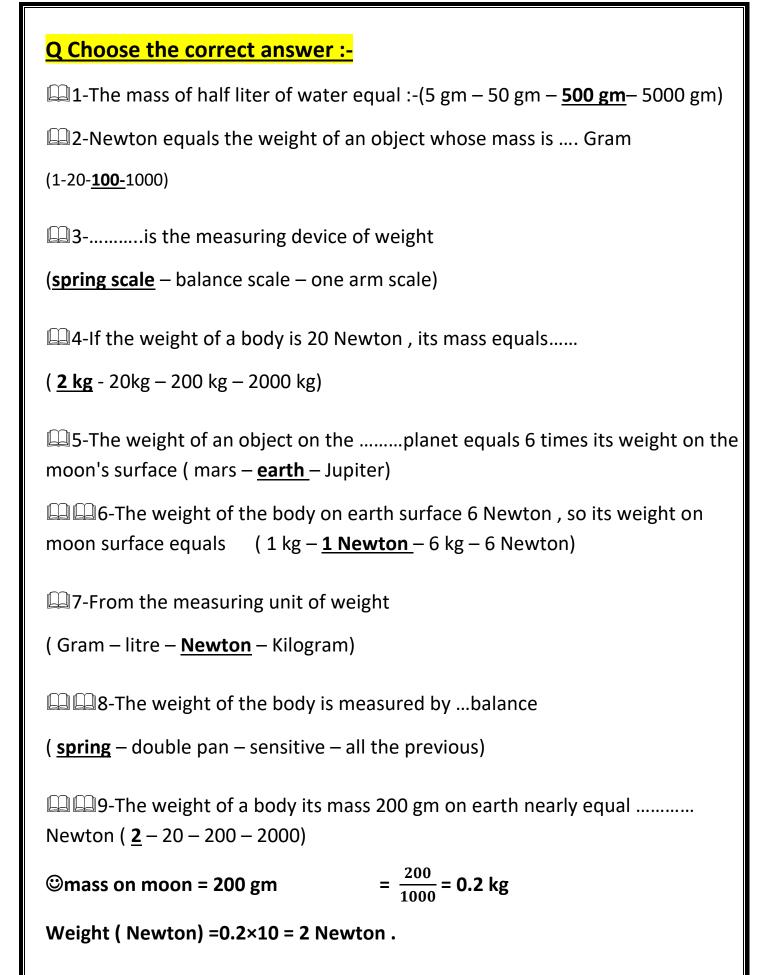
<b></b>	ial skeleton and appendicular skeleton
Write one difference betwe (slightly) movements joints	ven wide (freely) movement joints and limited
Q Classify the following joint	
1-Skull joint	
2-Knee joint	
3-Elbow joint	
4-Shoulder joint	

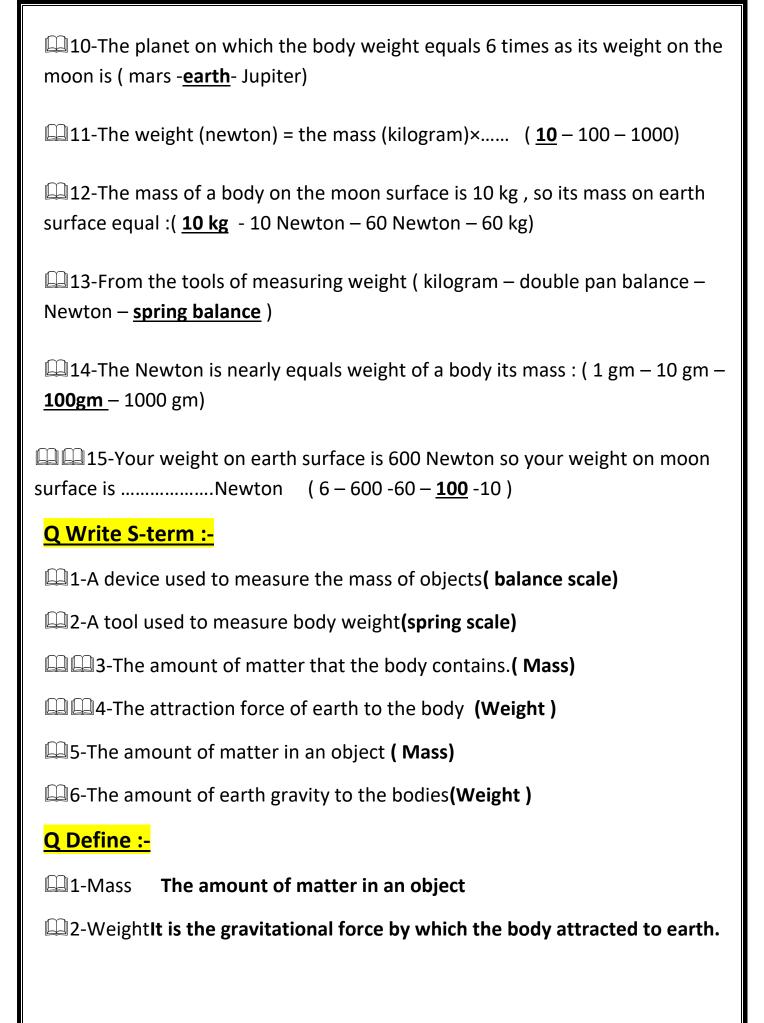
### 1-WEIGHT - MASS

as **mass** increase.

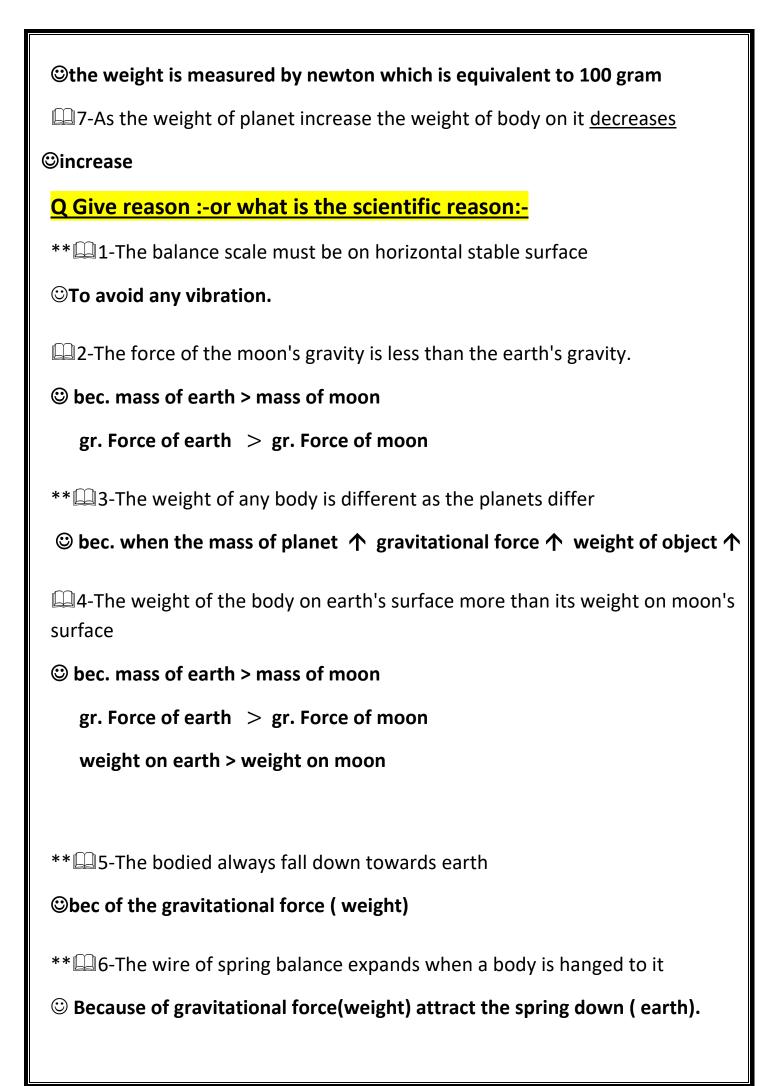
### Q Complete:-.. 1-The kilogram is the measurement unit of mass, the Newton is the measurement unit of weight. 2-The mass is measured by **kilogram** unit, and the weight is measured by **Newton** unit. 3-The mass is measured by **balance scale** and the weight is measured by spring scale. 4-The factors affect the weight of the body depend on mass, planet, distance between the object and center of planet. 5-The weight of the body on moon surface equal **one sixths** of its weight on earth's surface. 6-The weight of the body on earth surface increase as the **mass** increase 27-As the mass of the planet on which the body exist, the **gravitational** force of the planet increases and weight of body increase. 8-The weight is **the gravitational force by which the body attracted to** earth. 9-The instrument which in the measuring mass is **balance scale**, while the instrument which in the measuring weight is spring scale. 10-The attraction force of earth for a body is called **weight** and it increases

11-The weight of the body is measured by **spring scale** balance.





Q Mention the function of or what is the importance of the following:-
1-Spring balance
©Measuring tool of weight
2-Two arm balanced scale
©Measuring tool of large masses
43-Earth gravity
©Attract body to earth
<b>Q</b> Correct the following statements or rewrite the following
sentences after correcting: :-
1-The weight is constant amount changes as the location changes
© change
2-The mass of a body on earth surface equal 6 kgs, so its mass on moon surface equal 1 kg
©its mass on moon surface equal 6 kg
3-The mass of one liter of distilled water equal 100 gm
<b>◎1000</b> gm
4-As the mass of the planet increases the weight of body on it decreases
©increase
5-The weight of any object can be measured by the balance scale
©Spring scale
6-The mass is measured by newton which is equivalent to 1000 gram



☐7-The weight of the body on earth's surfa	ace differs from its weight on
8-The weight of the body on certain plan	et differs as the planet differs
© bec. when the mass of planet $\uparrow$ gravita	ational force $\uparrow$ weight of object $\uparrow$
** 9-The force moon's gravity is less than	that of earth's gravity
☺ bec. mass of earth > mass of moon	
gr. Force of earth > gr. Force of moon	
weight on earth > weight on moon	
10-the body weight in a balloon is different surface	ent from its weight on earth's
© bec. Weight decrease when distance be increase	tween body and centervof earth
Q what happen if or what would happ	en in the following cases:-
1-There is no earth gravity	
©no life - no weight	
Compare between :- balance scale-spring	ig scale
balance scale	spring scale
use Measuring the mass of big objects	Measuring the weight of objects
Write one difference between Mass and w	_

	Mass	Weight
Define	It is the <b>amount</b> of matter of an object.	The <b>gravitational force</b> by which the body attracted to earth.
Measuring Unit	Gram: small masses. Kg: large masses.	Newton
Measuring Tool	Common balance Sensitive balance	Spring Scale

- □1-A piece of rock is placed in a pan of double pans balance, the sum of masses which are placed in the other pan is 300 gm to make balance a)What is the mass of the piece of rock ?what the direction of the effect of this mass? □300 gm , mass is constant
- b) What is the weight of the piece of rock ?what the direction of the effect of this weight ?

©weight on earth = mass (kg) ×10

 $= 0.3 \times 10 = 3 \text{ Newton.}$ 

when distance between body and center of planet increase,

gravity force decrease so the weight decrease

- c) What is the effect of changing the place on both mass and weight of the rock piece ? mass is constant, but weight change (when the mass of planet pravitational force weight of object processes weight processes we weight processes weight processes weight processes we we will see we we will see we will see we will see we will see we will see
- 2-A body its mass 10 kg .calculate its weight of on earth surface
  - Weight on earth ( Newton) = Mass (kg)×10.

= 10×10=100 Newton

3-A body its mass 6 kgm, calculate its weight of on earth surface and also calculate its weight on moon surface

©weight on earth = mass (kg) ×10

$$= 6 \times 10 = 60$$
 Newton.

Weight on moon = 
$$\frac{\text{weight on earth}}{6}$$
  
=  $\frac{60}{6}$  = 10 Newton

4-Calculate the mass of a body its weight 300 Newton

Mass = 
$$\frac{300}{10}$$
 = 30 kg

□ 5-The mass of an object on earth's surface equal 60 kgm , calculate its weight on moon's surface , given that moon's gravity equals 1/6 of earth's gravity

<sup>⊕</sup>Mass of moon = 60 kg

©weight on earth = mass (kg) ×10

Weight on earth =  $60 \times 10 = 600$  Newton.

Weight on moon = 
$$\frac{\text{weight on earth}}{6}$$
  
=  $\frac{600}{6}$  = 100 Newton

## **2-HEAT CONDUCTION**

### **Q Complete:-..**

- 1-The heat is a form of the energy
- 2-The temperature is considered as an indicator that helps us to express **hotness** and **coldness** of the body
- 3-We measure temperature by using thermometer

4-Copper, iron and aluminium are good conductor of heat
5-plastic, paper and wood are bad conductor of heat
6-All metals are <b>good</b> conductors of heat
7-Copper conduct heat faster than aluminium
8-cooking pots and kettles are some usage of good conductors
9-heavy blankets, handles of cooking pots and handles of kettle are some usage of bad conductors
10-From the examples of substances which are good conductors of heat aluminum and copper
11-From the examples of substances which are bad conductor of heat wood and plastic
12-The holder of cooking pans is made of wood or plastic
13-The good conductor substances are the substances which allow heat to pass through as copper.
14-The bad conductor substances are the substances which don't allow heat to pass through as wood
Q Choose the correct answer:-
□ 1-All the following from substances which are good conductors of heat except (Aluminum and iron – copper and iron - glass and wood-Aluminum and copper)
2is from the bad heat conductor substances.
( copper – iron- <u>wood</u> )

3-Which of the following is faster in conducting heat (aluminium – iron – copper – glass)
4-The best metal in conducting heat is( aluminum – <u>copper</u> – iron – wood)
5-Which of the following metals in more heat conductor?
( aluminum – <u>copper</u> – iron)
6-From the substances which are bad conductor of heat (iron and aluminium – copper and glass – glass and wood – aluminium and copper)
Q Write S-term :-
1-Materials that let heat flow through (heat conductors)
2-The substances that allow heat to pass through (heat conductors)
3-The substance that not allow heat to pass through (heat insulator)
4-The materials that don't let heat flow through (heat insulator)
5-An indicator helps us to express the state of the body from the point of hotness and coldness (Temperature)
Q Define:-
1-Heat
©It is the form of energy that transfer from the higher temperature object to lower temperature object
2-Temperature

©It is the degree of hotness or coldness of a body
☐3-The good heat conductor substances☐ heat conductor
©They are the material that let heat flow through example Iron – aluminium
<ul> <li>copper- Stainless steel use for Making cooking pan and Kettles .</li> </ul>
4-The bad heat conductor substances heat insulator
©They are the material that don't let heat flow through example Wood – glass – plastic – paper – wood – rubber- air use for Making handles of cooking pan and handles of Kettles
Q Mention the function of or what is the importance of the following (usage of):- or What is the main use of :-
1-Plastic in the manufacture of the handles of cooking utensils
©bec it is heat insulator don't allow heat to pass through
2-The plastic handles of cooking pots
©bec it is heat insulator don't allow heat to pass through
3- good conductors of heat
Making cooking pan and Kettles .
4- bad conductors heat insulator
Making handles of cooking pan and handles of Kettles
Q put ✓ or × :-
1-heat transfer from cold object to hot object (*)
hot object to cold object.
2-All materials are good conductors of heat(*)metals

□3-Aluminium is bad conductor of heat (*) • Wood.
4-the different metals transfer heat by the same rate (*)
© different rate
☐ 5-Aluminium conducts heat faster than copper (*) iron
☐6-Cooking pots are made of <u>plastic</u> (*) Aluminium
☐7-Handles of cooking pots are made of <u>copper</u> . (*) plastic
■8-wood is a good conductor of heat . (*)©copper
<b>Q Correct the following statementsorrewrite the following sentences after correcting:</b>
1-Copper from substances which the heat cannot pass through it
©wood
2-The different metals transfer heat by the same rate.
©different rate
Q Give reason :-or what is the scientific reason:-
**1-wood is considered as a heat insulators ,while copper is a heat conductor
© bec. wood doesn't allow heat to flow through but copper allow heat to flow
2-Plastic is different from copper in conducting heat
© bec. plastic is heat insulator doesn't allow heat to flow through but copper is heat conductor allow heat to flow

<u> □□ Co</u>	mpare between :-Bad heat conducts substances.  Heat conductors  Good conductor of heat	•
<u> □□ Co</u>	<mark>mpare between</mark> :-Bad heat condu s substances.	ictor substances and good heat
<u> □□ Co</u>	<mark>mpare between</mark> :-Bad heat condu	•
	•	•
©we can'	t make a namines of pots, we can t	make heavy blankets
<b>we</b> can't make a handles of pots , we can't make heavy blankets		
1-All substances that the man uses are good conductor of heat		
<u>Q what has a common to the co</u>	<mark>lappen if or what would happel</mark>	n in the following cases:-
©bec copper let heat to pass through faster than aluminum		
_		
** 47-The copper conduct heat faster than aluminum		
bec . Aluminium is heat conductor allow heat to flow		
6-Aluminum is used in manufacturing of cooking pans		
•	plastic or wood are heat insulator d nium or copper is heat conductor a	
	er is consider from good conductor conductor of heat	of heat while wood is consider
cooking p	ots are made of aluminum	
<b>4-Th</b>	e handles of cooking pots are made	of wood or plastic while the
plastic or	·Cooking pots are made of aluminun wood	

heat flow through

Iron – aluminium – copper-Stainless stee Wood – glass – plastic – paper-rubber-

Example

Uses	Cooking pan(pots)(utensists)	Handles of cooking utensils
	Kettles (boilers)	Handles of electric iron
application		Handles of kettles
		Heavy blankets and woolen clothes.

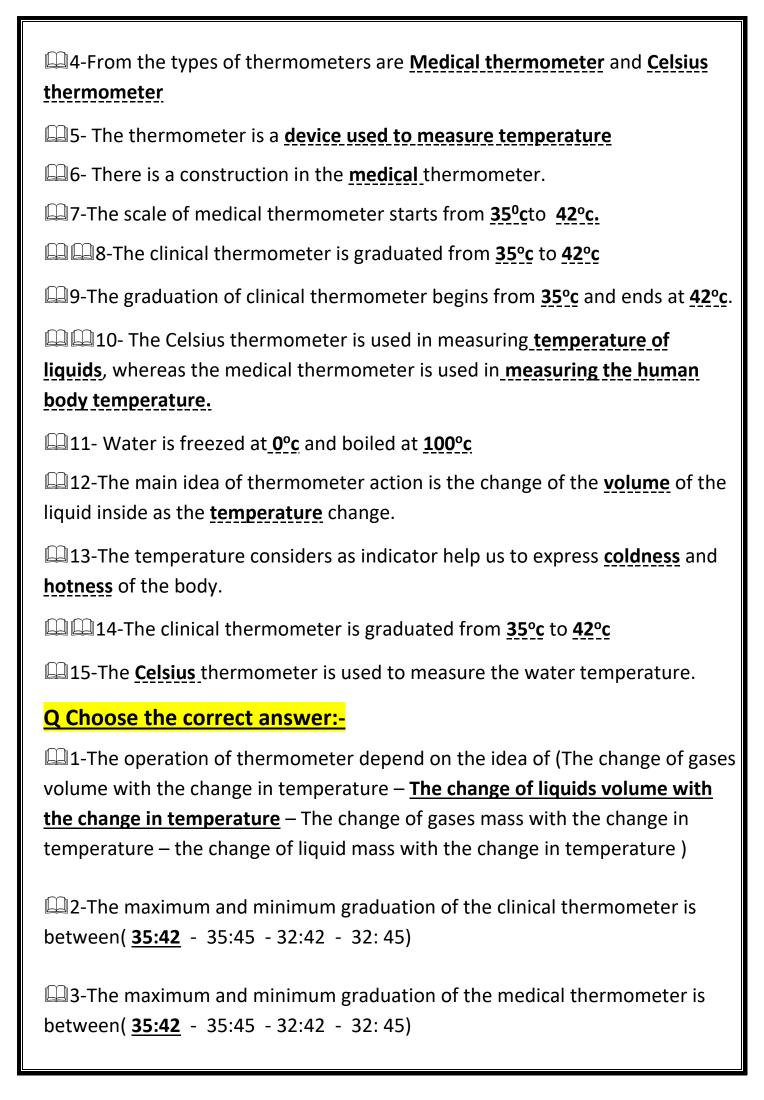
## 🖳 Join

(A)	(B)	
a. Copper	1- Is bad conductor of heat	(b)
b. Plastic	2- Is good conductor of heat	(a)
c. Mercury	3- Is a liquid used in manufacture of thermometers	(c)
d. Alcohol	4- Is a liquid used in sterilizing of thermometers before usage	(d)

# **3- THERMOMETER:-**

## **Q** Complete:-..

- $\square$ 1- The main idea of making thermometer is changing the <u>volume</u> of liquid by changing the <u>temperature</u>.
- 2- <u>Medical thermometer</u> and <u>Celsius thermometer</u> are from the kinds of thermometers.
- 3-The types of thermometers are **Medical thermometer** and **Celsius thermometer**



4-All the following from the properties of mercury as thermometrical substance except (good conductor of heat – its expansion is regular – give limited extent to measure the temperature – not adhere to the walls of capillary tube)
5-The clinical(medical) thermometer is different from Celsius thermometer in (The type of matter present in the reservoir — The presence of constriction in the capillary tube — The type of matter used in manufacturing — the effect of change temperature on the present liquid volume)
Q Write S-term :-
1- An instrument used for measuring the temperature (Thermometer)
2- A device used for measuring the temperature of human body (Medical thermometer)
3-A tool used to measure human body temperature (Medical thermometer)
4-A device used to measure the temperature of liquids (Celsius thermometer)
☐ 5-An instrument used in measuring the temperature of liquid material (Celsius thermometer)
$\square$ 6-The liquid that is used in making the medical and Celsius thermometer ( Mercury )
7-Tools used to measure the temperature. (Thermometers)
8-An instrument used for measuring the temperature (Thermometers)
9-An indicator helps us to express the state of the body from the point of hotness and coldness (Temperature)
☐ Define Temperature

Q Mention the function of or what is the importance of the following or What
is the main use of:-
1-Thermometer.
Measuring the temperature.
2-Medical thermometer.
Measuring the temperature of human body.
3-Clinical thermometer
Measuring the temperature of human body
4-Mercury in thermometer.
© It expand by heating and construct by cooling
Q put ✓ or ×and correct:-
$\square$ 1-The graduation of clinical thermometer is from $37^{\circ}$ c to $45^{\circ}$ c and each degree is graduated to ten parts ( $\cancel{*}$ )
©35°c to 42°c
2-The Celsius thermometer is used for measuring the temperature of human. (*)@medical thermometer
☐3- There is a constriction above the mercury bulb in the Celsius thermometer (※) © medical thermometer
☐ 4- The used liquid in the medical thermometer is water (*) © Mercury

☐ 5- The <u>medical thermometer</u> is used for measuring the temperature of liquid (x) © Celsius thermometer
☐6- Mercury is considered from <u>bad conductor</u> substances (*)Good conductor
7-Heat transfers from a cold object to a hot object (*)hot to cold
■8-Copper is considered from bad conductor substance (*)good conductor
9-Aluminum conduct heat faster than copper (*)copper faster than Al
10-Mercury is considered from bad conductor substances (*) good conductor
Q Correct the following rewrite the following sentences after correcting: :-
1-The graduated of clinical thermometer is from 37°c to 45°c and each degree is graduated to ten parts
© from 35°c to 42°c and each degree is divided to ten parts
2-The liquid used in clinical thermometer is the alcohol
© Mercury
Q Give reason :-or what is the scientific reason:-
1-There is a constriction above the mercury bulb in the medical thermometer.
In clinical thermometer there is a constriction above mercury reservoir
©to prevents the mercury from going back to the bulb quickly to read easily.
** 2-Mercury is used in thermometer
©bec 1- It is liquid metal that can be seen easily 2-It is good conductor of heat 3- It expand regularly 4- It doesn't stick to the walls of the capillary tube 5-It remains in liquid state between -39°c to 357°c.

- □ 3- Mercury give wide range to measure the temperature..
   □ It remains in liquid state between -39°c to 357°c.
   □ 4-The clinical thermometer is used in measuring human body temperature while it is not suitable for measuring the liquid temperature.
   □ bec the scale of medical thermometer from 35°c to 42°c
   □ 5-Mercury is used in clinical thermometer
   □ 6-Mercury is preferred in manufacture of thermometers
   □ 0It is liquid metal that can be seen easily from glass thermometer.
- 2- It is good conductor of heat.
- 3- It expand regularly.
- 4- It doesn't stick to the walls of the capillary tube.

### Q what happen when :-

- 1-A medical thermometer is put in boiled water.
- ©it will damage because the boiling point of water is 100°c and medical thermometer range is 35°c to 42°c
- 2- There is no constriction in medical thermometer
- The mercury will return back to bulb before reading the temperature.

**Q Explain the following:-**

- 1-In the clinical thermometer there is a constriction in the capillary tube above mercury reservoir
- ©to prevents the mercury from going back to the bulb quickly to read easily.
- 2-The clinical thermometer is not used to measure boiling point of water
- Explain the clinical thermometer is not used to measure boiling point of water
- ©© bec the scale of medical thermometer from 35°c to 42°c and the temperature of boiled water is 100 °c.
- 3-The mercury is used in manufacture of thermometers
- ©©It is liquid metal that can be seen easily from glass thermometer.
- 1- It is good conductor of heat.
- 2- It expand regularly.
- 3- It doesn't stick to the walls of the capillary tube.
  - 4-The mercury gives wide range to measure the temperature .
  - © It remains in liquid state between -39°c to 357°c
  - What is the role of (function of) mercury in Celsius thermometer
  - **©mercury change its volume by changing the temperature ( it expand by heating and contract by cooling)**

#### **Join**

(A)	(B)	
a. Gram	1- the measuring unit of weight	(c)
b. Kilo gram	2- the measuring unit of temperature	(d)
c. Newton	3- the measuring unit of heavy body mass	(b)
d. celsius	4- the measuring unit of light body mass	( a)

Compare between: - clinical thermometer and Celsius thermometer (usage – structure – used liquid – scale)

	Celsius thermometer	Medical thermometer
Define	It is thermometer that is used	It is thermometer that is used to measure
( usage)	to measure the temperature of liquids.	the temperature of human body.
Structure	1-Transparent thick glass tube.	
( Consist of)	2- Capillary tube closed from one of its ends	
	3-Mercury bulb filled with mercury and	
	connected to other end of capillary tube.	
Constriction	/	Present
Used liquid	Mercury	Mercury
Range of scale	Start from 0°c to 100°c	Start From 35°c to 42 °c

# 4- OXYGEN:-

#### **Q** Complete:-..

- 1-The atmosphere consists of a mixture of gases surrounding earth
- 2-The oxygen gas of the atmosphere is consumed during <u>respiration</u> and <u>combustion</u> process
- 3-Oxygen is prepared from **hydrogen peroxide** in presence of **manganese dioxide**.
- 4-Oxygen is produced from **photosynthesis** process and carbon dioxide produced from **respiration** process.

5-From the uses of oxygen gas are <u>respiration</u> and <u>combustion</u>
Q Choose the correct answer :-
1-The percentage of oxygen gas in atmosphere equals( 87% - 12%-21% - 30%)
2gas is used with acetylene to weld metals
( <u>oxygen</u> – nitrogen – carbon dioxide)
$\square$ 3-Oxygen is present in the atmosphere in gas state in form of molecules , its structure (O – $\underline{O}_2$ – O <sub>3</sub> – O <sub>4</sub> )
4-Respiration and combustion process consumegas ( oxygen – nitrogen – argon – carbon dioxide)
5-Hydrogen peroxide decomposes in presence of manganese dioxide to (oxygen and hydrogen – oxygen and water – hydrogen and water – hydrogen and manganese)
4 G-Hydrogen peroxide is used in preparation of
( hydrogen – nitrogen – <u>oxygen</u> – carbon dioxide)
7-The gas which is used with acetylene in welding metals isgas ( Oxygen – Nitrogen – hydrogen- carbon dioxide)
Q Write S-term :-
1-A gas molecules consist of three atoms of oxygen. (Ozone)
2-A gas used in its preparation hydrogen peroxide (oxygen)
3-A gas its molecule consists of three oxygen atoms and forms a layer of atmosphere (Ozone)

4-A flame used in cutting and welding metals (oxyacetylene flame)
Q Mention the function of or what is the importance of the following:-
Oxygen gas in nature
©respiration and combustion of food to produce energy
Formation of water H₂O - Ozone layer O₃
Q Correct the following statements or rewrite the following sentences after
<u>correcting:_:-</u>
1-Oxygen gas not burn and not help burning
©oxygen doesn't burn but helps in burning
2-The molecule of ozone gas consist of four oxygen atoms
©3 oxygen atom
3-Carbon dioxide gas is essential to form rust oxygen
Q Give reason :-or what is the scientific reason or justify:-
1-Oxygen ratio still constant in atmospheric air although a large part of it consumed during respiration and combustion processes
نفس السوال** 🅮 1-The oxygen ratio is constant in atmospheric air
©because respiration and combustion take oxygen, photosynthesis process
produce oxygen.
** 2-The atmosphere has great importance in the continuity of life on earth ©- protect earth by absorbing ultra violet radiation

- it adjusts the temperature of earth surface
** 23-Oxygen is collected by down displacement of water during its preparation in laboratory
©because oxygen rarely dissolve in water
4-Divers use oxygen cylinders during diving in water.
© to respire under water .
** 45-Manganese dioxide still without change in quantity and properties during preparation of oxygen
©bec it is a catalyst( used to decompose hydrogen peroxide into water+oxygen
☐ 6-Oxygen cylinders are used during mountain climbing
©because oxygen heavier than air so oxygen decrease on mountain
** 27-Ozone gas is very important in nature
©bec it protect earth from harmful radiation of sun
** 28- oxygen gas doesn't change colour both of red and blue litmus paper
©bec it has neutral effect on litmus paper
Q what happen if or what would happen in the following cases:-
1-There is no oxygen in the atmospheric air
©we can't respire so we will die
2-A nail wetted by water is exposed several days to humid air
<b>©the rust will form brown layer ( iron oxide)</b>

3-The decrease of oxygen quantity in nature
©we cann't respire , no combustion
4-if you know that oxygen doesn't burn but help in burning what happens if oxygen percentage in air is more than 21%
©we cann't control burning
☐ 5-A mass of cleansing before and after heating
©The mass of metal oxide greater than mass of metal
<u>Q Explain the following:-</u>
1-During oxygen preparation the gas is collected by down displacement of water in the jar.
©because oxygen rarely dissolve in water
** 2-Ozone layer has great importance in the life of creatures on the earth surface
<b>©it protect earth from harmful radiation of sun</b>
3-The mass of aluminum wire increase after heating till it become red
©The mass of metal oxide greater than mass of metal
4-Oxidation and combustion
©combustion is a rabid combination between oxygen and element producing
heat and light
And oxidation :- it is slow combination between oxygen and element in presence
of water example iron rusting
Components of the atmosphere

**31- Nitrogen** → 78 % **2- Oxygen →21 %** 3- Carbon dioxide + other gases 1% Q What is the main use of :-1-The oxyacetylene flame **©used for cutting and welding metals 5-CARBON DIOXIDE:-**Q Complete:-.. 1-Carbon dioxide gas is produced as result of the combustion of **organic** substance as **wood** also produces from **respiration** of living organism. 2-The properties of carbon dioxide gas are colorless and odorless, co2 doesn't burn-doesnot help in burning 3-The sources of carbon dioxide gas are **respiration** and **combustion** Q Choose the correct answer :-1-Photosynthesis process in the plant depend on the presence of oxygen – nitrogen – carbon dioxide – ozone)

2-Which of the following can be obtained on adding dilute hydrochloric acid to calcium carbonate powder (nitrogen – oxygen – hydrogen – carbon dioxide)
3-When the exhaled gas passed through clear lime water , it becomes turbid forming substance called
( <u>calcium carbonate</u> – calcium oxide – calcium hydroxide)
4-When a glowing magnesium ribbon is placed in a jar containing carbon dioxide, on the walls of the jar , the element formed is (oxygen – nitrogen – hydrogen- carbon)
5-Carbon dioxide gas is used in ( steel industry – gun powder – ammonia industry – <b>bread</b> )
6-The gas which turn lime water turbid isgas .
( oxygen – nitrogen – <u>carbon dioxide</u> )
7-A gas can be prepared by using calcium carbonate power and dilute hydrochloric acid is(oxygen –nitrogen- carbon dioxide)
Q Write S-term :-
1-A gas used to put off fires (Carbon dioxide)
☐3-A gas produced from respiration and comes out with exhales gas(CO <sub>2</sub> )
4-A gas used in photosynthesis process (CO <sub>2</sub> )
Q put ✓ or × and correct:-
□1-Carbon dioxide gas turns clear lime water turbid ( ✓)
2-Carbon dioxide is used in manufacture of soft drink (🖍)

□3-Formation of a black ppt when carbon dioxide gas is passed on a clear lime water (*) © White ppt
4-Carbon dioxide is prepared by downward displacement of air
(*)upward displacement of air
□ 5-Carbon dioxide gas is used in making dry ice and soft drinks ( ✓)
☐ 6-From the characteristics of <u>oxygen</u> , that it is a colorlss and odorless gas, and easily dissolves in water(*)_©Carbon dioxide
Q Correct the following statements:-
1-A black precipitate is formed when carbon dioxide gas is passed in lime water
©white substance
Q Give reason :-or what is the scientific reason :-
1-Clear lime water is used to detect the presence carbon dioxide
©bec it become turbid
2-Decreasing the green areas harm the environment
<b>⊕bec green planets increase oxygen and decrease co₂</b>
3-Carbon dioxide is used in extinguishing fires
**نس السوال** عنس السوال***نس السوال
©bec it doesn't burn and doesn't help in burning
4-Yeast is added to dough on making bread
©because by adding yeast carbon dioxide which make bread porous and tasty.
☐ 5-in last years, the environment is suffered from increasing of the percentage of carbon dioxide

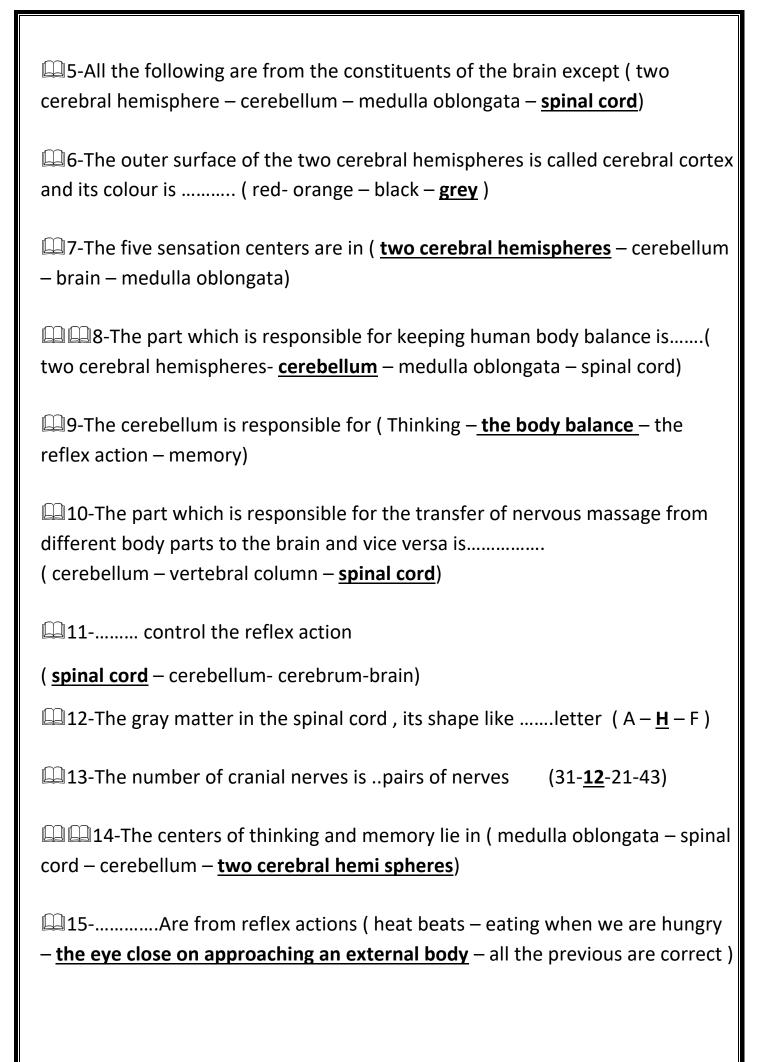
©because of removal of forests and combustion of big amount of fuel
** 46-The ratio of carbon dioxide gas increase in nature in last years
©because of removal of forests and combustion of big amount of fuel
27-Carbon dioxide gas has great vital importance in life continuity on earth surface
7-Carbon dioxide gas is important for nature نفس السوال
©bec green planets take co₂ in photosynthesis process
** 28-When carbon dioxide gas passes in clear lime water it becomes turbid
©because of white ppt ( calcium carbonate) which insoluble in water
** 9-yeast is added to dough during making bread
©bec yeast produce co₂ which make bread porous and tasty
Q what happen if or what would happen in the following cases:-
Q what happen if or what would happen in the following cases:-  1-The percentage of carbon dioxide gas in the atmospheric air increase
1-The percentage of carbon dioxide gas in the atmospheric air increase
1-The percentage of carbon dioxide gas in the atmospheric air increase cincrease the temperature of atmosphere (global warming) -suffocation
☐ 1-The percentage of carbon dioxide gas in the atmospheric air increase ☐ increase the temperature of atmosphere (global warming) -suffocation ☐ 2-The percentage of carbon dioxide gas in the atmospheric air decrease
□ 1-The percentage of carbon dioxide gas in the atmospheric air increase  ©increase the temperature of atmosphere (global warming) -suffocation  □ 2-The percentage of carbon dioxide gas in the atmospheric air decrease  □ 2-The decrease of the carbon dioxide quantity in nature  ©green planets can't make photosynthesis process so oxygen will decrease
□ 1-The percentage of carbon dioxide gas in the atmospheric air increase  ©increase the temperature of atmosphere (global warming) -suffocation  □ 2-The percentage of carbon dioxide gas in the atmospheric air decrease  □ 2-The decrease of the carbon dioxide quantity in nature  ©green planets can't make photosynthesis process so oxygen will decrease causing death
□ 1-The percentage of carbon dioxide gas in the atmospheric air increase         ©increase the temperature of atmosphere (global warming) -suffocation         □ 2-The percentage of carbon dioxide gas in the atmospheric air decrease         □ 2-The decrease of the carbon dioxide quantity in nature         ©green planets can't make photosynthesis process so oxygen will decrease causing death         □ 3-A glowing magnesium ribbon is placed in a gar filled by carbon dioxide gas

6-NITROGEN
Q Complete:  1-Nitrogen gas occupies 78% from atmospheric air.
Q Choose the correct answer:-
1-Which of the following gases have great percentage in atmospheric air
( oxygen – <u>nitrogen</u> – carbon dioxide – water vapour )
Q Write S-term :-
1-The main source of nitrogen gas (Atmospheric air)

Q put √ or * and correct:-	
1-Nitrogen gas represents 21 % of the volume of the atmosphere	
( <i>x</i> ) 78 %	
□ 2-Legumes such as clover and peas benefit from the nitrogen in the air( ✓)	
□3-Nitrogen gas is called azote and its meaning gas of life(*) lifeless gas	
☐4-Nitrogen is called azote which means life less gas( ✓)	
☐ 6-Nitrogen gas easily dissolves in water(*)	
©scarcely dissolve in water	
■8-In legumes plants the nodular bacteria fix nitrogen of atmospheric air.( ✓)	
9-The nodular bacteria fix oxygen of air in the roots of leguminous plants such as beans and clover(*) fix Nitrogen	
10- Oxygen gas occupies 78% of atmospheric air components (*)	
○ Nitrogen	
Q Correct the following statements or rewrite the following sentences after	
<u>correcting: :-</u>	
1-Nitrogen react easily with other element	
©doesn't react easily (inactive element)	
2-Nitrogen is called azote which means <u>life</u> gas <b>©lifeless gas</b>	
4-The nodular bacteria fix <u>oxygen</u> in roots of leguminous plants <b>Onitrogen</b>	
□ 5-Nitrogen gas is used in putting off fires ©Co <sub>2</sub>	
6-Nitrogen gas dissolves in water	
©scarcely dissolve in water	

☐7-Nitrogen peroxide gas decomposes to water and nitrogen in presence of manganese dioxide
©hydrogen peroxide decomposes to water and oxygen in presence of manganese dioxide.
Q Give reason :-or what is the scientific reason or justify:-
** 4-Nitrogen gas is called azote
7-The main source of nitrogen preparation is the air
©bec nitrogen is 78% of air
Q what happen if or what would happen in the following cases:-
1-Nitrogen is not present in the atmospheric air
©the protein substance that builds up the bodies of all living organisms is no formed
7- NERVIOUS SYSTEM
Q Complete:-
1-The axon of nerve cell is surround by myelin sheath.
2-The nervous system consists of <u>central nervous system</u> and <u>peripheral</u> <u>nervous</u> system
3-The nervous system consists of two systems are <u>central nervous system</u> and <u>peripheral nervous</u> system
4-The main center of the control in your body is <b>the brain</b> and it is found inside bony case called <b>skull</b>

5-The brain consists of <u>cerebrum</u> and <u>cerebellum</u> and <u>medulla oblongata</u>
6-The spinal cord controls the reflect actions (reflexes)
7-The peripheral nervous system consists of <u>cranial</u> , <u>spinal</u> nerves.
@@@8-The number of cranial nerves is 12 pair and the number of spinal nerves is 31 pairs.
9-The over intake of tea and coffee causes <u>nervous tension</u> and <u>affect</u> <u>heartbeats</u>
10-The number of nerves in human body is 12 pairs.
11-The number of vertebrae of vertebral column is 33 vertebrae
12The brain consists of cerebrum, cerebellum and medulla oblongata
Q Choose the correct answer:-
Q Choose the correct answer:-  □ 1-The nerve cell consists of( nucleus- cytoplasm and plasma membrane – all the all the previous)
1-The nerve cell consists of( nucleus- cytoplasm and plasma membrane
1-The nerve cell consists of( nucleus- cytoplasm and plasma membrane – all the all the previous)
□ 1-The nerve cell consists of( nucleus- cytoplasm and plasma membrane – all the all the previous) □ 2-One of the components of the nerve cell body is the
1-The nerve cell consists of( nucleus- cytoplasm and plasma membrane – all the all the previous)  2-One of the components of the nerve cell body is the  ( blood vessels – myelin sheath – dendrites – synapse)
1-The nerve cell consists of( nucleus- cytoplasm and plasma membrane – all the all the previous)  2-One of the components of the nerve cell body is the  ( blood vessels – myelin sheath – dendrites – synapse)  3-Myelin sheath surrounds the



16-All the following from the components of central nervous system except
( <u>Spinal nerve</u> – two cerebral hemisphere – Spinal cord – medulla oblongata)
17-Which of the following is responsible for keeping the body balance (medulla oblongata – two cerebral hemispheres – spinal cord – cerebellum)
☐ 18-Medulla oblongata is responsible for (controlling the voluntary movement – keeping the body balance – controlling the involuntary processes – reflex action)
Q Write S-term
1-The system which is responsible for communication and coordination between the human body systems (The nervous system)
2-A part of nervous system that responsible for the transfer of nervous message from different parts of the body to the brain and vice versa.
( spinal cord)
3-An organ responsible for reflex action (spinal cord)
<ul><li>3-An organ responsible for reflex action (spinal cord)</li><li>4-A part of nervous system responsible for reflex action(Spinal cords)</li></ul>
4-A part of nervous system responsible for reflex action(Spinal cords)
4-A part of nervous system responsible for reflex action(Spinal cords) 5-An organ responsible for reflex actions of the body(Spinal cords) 6-It consists of gray matter in the form of letter H surrounded by a white
4-A part of nervous system responsible for reflex action(Spinal cords) 5-An organ responsible for reflex actions of the body(Spinal cords) 6-It consists of gray matter in the form of letter H surrounded by a white matter (spinal cord)

10-The automatic resulting (Reflex action)	sponse of the body when it exposes to or	uter stimuli as
11-Spontaneous resp	oonse from the body to different stimuli	(Reflex action)
<b>Q</b> Mention the function	of or what is the importance of the foll	<mark>owing:-</mark>
1-Nerves responses between the	it delivers the sensory information a central nervous system and all parts of	
2-Nervous system responsible for knowing emotions	©1-Control and regulate all vital oper g hot-cold, sweet – bitter, rough – smo	
□3-Cerebellum	it maintain balance	
4-Spinal cord	© responsible for reflex action	
□□5-The brain		
It directs and coording	ates all processes ( ideas , behaviors , er	notions)
6-The two cerebral h	emispheres	
☐6-cerebrum		
1- Control voluntary mo	vements ( running – walking – sitting)	
2- Receive nerve impulse	es	
3- Contain centers of thi	nking -memory	
□7-Medulla oblongata		
© control involuntary processes(heart beats – respiration- digestion)		
PP 8-Skull	<b>©</b> to protect the brain	
9- thoracic cage	©protect lungs - heart	

10-rib cage **©protect lungs - heart** Q put ✓ or × and correct:-1-The human digestive system is a communicating and controlling body system (\*) nervous system 2-The synapse is formed as a result of communication of nerve cell's axon (\*)Axon terminal 3-The axon of the nerve cell is surrounded by gelatinous layer (\*)myelin sheath 4-The cerebellum is the center of the main control in your body. (\*)brain 5-The cerebellum is responsible for keeping the balance of the human body during its movement ( < 46-The location of medulla oblongata is below cerebellum and joins the brain by spinal cord. (\*)at the bottom of  $\square$ 7-The spinal cord is responsible for reflex action in human body  $(\checkmark)$ 8-The spinal cord controls heart beats (\*) medulla oblongata 9-There are 12 pairs of spinal nerves and 31 pair of cranial nerves (\*) ©cranial nerves = 12 pairs - spinal nerves = 31 pairs 10- In spinal cord, there are centers responsible for sensory and kinetic @nerves (peripheral nervous system) responses (X)

11-From the brain, 10 cranial comes out (*)@12 pairs
□ 12-The vertebral column consists of 31 vertebrae (*) ② 33
<u>correcting:_:-</u>
1-The number of cranial nerves is 31 pairs
<b>◎12 pair</b>
The location of cerebellum is behind the brain <u>over</u> the two cerebral hemispheres <b>© below</b>
The <u>spinal cord</u> is responsible for the controlling the involuntary processes in our body  Medulla oblongata
Q Give reason :- or what is the scientific reason:-
1-There is a brain inside the skull
©to protect it
2-The cerebellum has great importance during the movement of the body
© it maintain balance
3-Spinal cord is surrounded by the vertebrae of the backbone
©to protect it
4-The infection of medulla oblongata lead to death
© Control involuntary processes (heart beats – respiration digestion)
** 45-The of staying away from tranquilizers and stimulants
© To keep your nervous system healthy – affect heart beats –

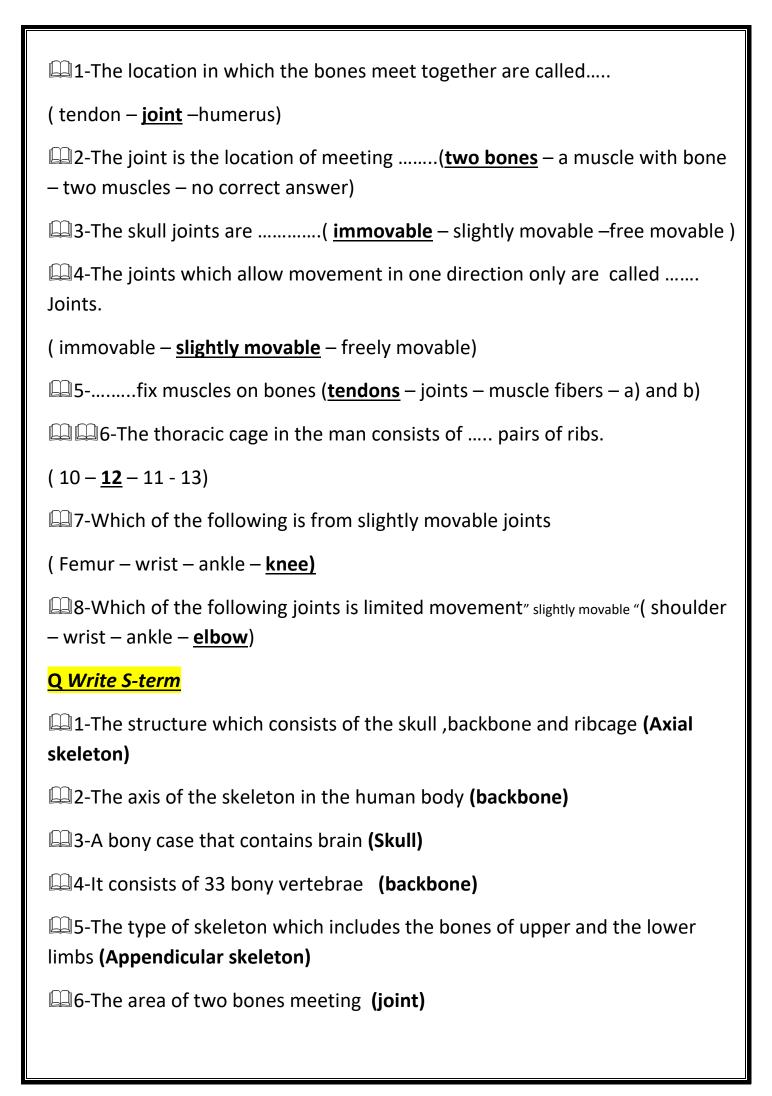
affect sleeping periods – lead to nervous tension
☐6-We must not taking sleeping tablets otherwise if the doctor advised it.
© To keep your nervous system healthy
☐ 7-The withdrawal of hand quickly upon touching sharp pin or hot body
©due to reflex action by spinal cord
8-It advised not to over intake the stimulating substances
© To keep your nervous system healthy because it 1- affect sleeping 2- affect
heartbeats 3- lead to nervous tension
Q what happen if or what would happen in the following cases:-
1-When you put your hand suddenly on a hot surface
<b>ூyou will put your hand away quickly</b>
2-Approaching something to your eyes
Blinking (reflex action)
3-Sitting for long time infront of the computer
4-Continuous exposure to contaminated air by the factories smoke
□ 5-A man is exposing to noise continuously
4 6-Continuous exposing to the noise
©Harm nervous system

Taking drugs		
The over use of stimulation drugs		
©© Harm nervous system		
The over intake tea and coffee es	specially during days of exams	
To keep your nervous system hea	althy because it 1- affect sleeping 2- affect	
heartbeats 3- lead to nervous tensio	n	
What is the role of (function of)	the nerve cell in the human hody	
what is the role of ( junction of )	the herve cen in the naman body	
It is the building unit of nervous system		
Mention three examples of reflex	« actions	
① 1-moving your hand away quickly when you touch sharp or hot object		
2-Blinking when some thing get close to your eyes		
3-increase eye pupil in dark.		
<u>Compare between</u> :- central nervous system and peripheral nervous system		
Central nervous system	Peripheral nervous system	
Consists of :- brain – spinal cord	12 pairs cranial nerve	
	31 spinal nerves	
Direct and coordinates all process	Deliver sensory information and kinetic	
– idea - emotions	responses between central nervous	

Mention two methods to keep nervous system

② 1- do exercise 2- keep away from pollution

10- Human locomotory system
Q Complete:
1-The human skeletal system consist of <u>axial skeleton</u> and <u>appendicular skeleton</u>
2-The axial skeleton in the man consists of skull, back bone and rib
cage .
$\square$ 3-The number of vertebrae of vertebral column is $\underline{33}$
4-The <b>joint</b> is the site of two bones meeting
5-The knee joint is considered from <u>slightly movable</u> joint while the femur(hips) joint is considered from <u>freely movable</u> joint.
Q Choose the correct answer:-



☐ 7-The joint which allows the movement in one direction only		
(slightly movable joint)		
8-Structures that fix muscles on bones (tendons)		
9-Types of muscles act spontaneously and cannot be controlled (involuntary		
muscles)		
10-The location of bones touch and allow moving. (Joints)		
11-Ligaments tied muscles with bone (Tendon)		
12-Areas between vertebrae of vertebral column separate and protect from friction between them (Cartilages)		
13-Group of joints that allow movement in one direction (Slightly movable joints)		
Q Mention the function of or what is the importance of the following:-		
1-Skull protect brain		
2-The back bone allow body to bend in different directions- protect		
spinal cord		
3-The rib cage		
©protect lungs and heart, help in inhalation and exhalation		
4-Joints		
©allow the movements between bones		
□ 5-muscular system		
©generate the mechanical energy that moves the body		

4 6-The tendons		
©fix the muscles to bones		
7-Cartilages between the vertebrae of the backbone		
©prevent friction during motion		
🕮 8- vertebral column		
allow body to bend in all direction – protect spinal cord		
Q put √or *and correct:-		
1-The joints is consider as freely movable joint		
QCorrect the following statements or rewrite the following sentences after correcting:		
1-The joints of skull are from limited movements joints immovable		
2-The shoulder joint considered from immovable joints		
□3-The cartilages join between muscles and bones		
Q Give reason :- or what is the scientificreason:-		
1-There are cartilages between the vertebrae of the back bone		
©to prevent frictions between vertebrae		
** 2-The rib cage surrounds both the heart and the lungs		
©to protect them		
** 43-Muscles have great importance in the movement of human body		
©bec muscles generate the mechanical energy they engine of body		
They have ability to contract and relax then body move		
4-The muscular system is consider as the main engine of our body		

©bec contraction and relaxation of renergy that move the body	nuscular cells generate the mechanical	
5-We cannot control the muscles of urinary bladder	of alimentary canal , blood vessels and	
©bec it work automatically		
<u>Q what happen if</u> or <u>what would hap</u>	pen in the following cases:-	
1-All the bones of the human body	are without joints	
<b>©the body can't move</b>		
2-Hip joint has a limited movemen	t	
©the lower limbs will move in one direction		
3-When the shoulder joints become	nes from the limited movement joint.	
the two upper limbs will move in one direction only		
4-The front arm muscle relaxes and	d the back arm muscle contracts	
©The arm moves down		
5-Jumping from high places(violent movements)		
the body may infected by fractures and strains		
☐ 6- there are no joints in the skeleton		
© don't allow movement between bones		
☐ 7- the knee joint becomes from wide movement joints		
allow movement in all directions		
Compare between :- The axial ske	leton and appendicular skeleton	
axial skeleton	appendicular skeleton	

Consist of:-	Consist of :-Bones of upper limbs –
Skull – backbone - ribcage	bones of lower limbs

Write one difference between wide (freely) movement joints and limited (slightly) movements joints

wide (freely) movement joints	limited (slightly) movements joints	
Allow movement in all directions	ovement in all directions	
Example:- shoulder joint	only example:- knee joint	

#### Q Classify the following joint

1-Skull joint immovable joint

3-Elbow joint Slightly movable joint

4-Shoulder joint ©freely movable joint

## Unit (one \ two) revision questions

### Question (1) Complete the following:

1- The measuring units of mass are
measuring unit of the weight is
2- All are good conductors of heat.
3- The factors that affect the weight are,
and
4- Weight is
5- Handles of the cooking pots are made up of because it is
6- Mass doesn't has but weight has it, which directs to
7 and are bad conductors of heat.
8- The measuring devices of mass are
the device that is used to measure the weight is
9 are good conductors of heat.
10 is faster than aluminum in conducting of heat.
11- Mass is defined as
12- Weight of any object on the moon = the weight on Earth.
13- Heat is used in different things at home such as,
and
14- There is between the two slides of the glass
windows because it is of heat.
15- Mass depends on the of the matter.
16- Mass is
$17$ - $Kg = \dots gm = \dots$ liter of distilled water
18- Gram is the unit of measuring of and it equals the mass
of
19 balance is used to measure small masses.
20 and are from types of
balances.
21- When the mass of an object increases, so the which needs to move it increases.
22- The choice of the balance depends on the of the matter.
== 1111 the time of the commet depends on the first of th

23- Mass doesn't change by the changing of the
26- One Newton = the mass of a body its mass =gram.  27- Half Newton = the mass of a body its mass =gram.  28- Two Newton = the mass of a body its mass =gram.  29- The attraction force which applied for an apple its mass 100 gm =N  30- The attraction force which applied for an apple its mass 300 gm =N  31is used to determine the weight.  32- The factors that affecting the weight are,
33- The weight of an object on Earth's surface by the increasing of its mass, and by the decreasing of it.
34- Weight (Newton) =
40- The weight of a man under the earth is than his weight above a mountain.
41- As we go away from Earth's surface, our weight
43- Heat energy is used at homes in
delity to telland me liam.

51
while
52- The materials that allow heat to flow through are called
53- The materials that don't let heat flow through are called
54- Air is conductor of heat.
55- Copper conducts heat than aluminum.
56- A are left between the railway bars to avoid
57 And are used in
making the utensils.
58 And are used in making the handles of
cooking pots.
59 is used in making the iron handle because it is
Conductor of heat.
60- The heavy blankets and the woolen clothes are used in
Because they are conductors of heat.
61- All Areconductors of heat.
62- Heat conductors are used in
63- Heat insulators are used in
64- The human temperature is measured with
65- The graduation of the medical thermometer starts fromto
66- There is a constriction in the medical thermometer to
67- The use of medical thermometer is
While that of Celsius thermometer is
68
thermometers.
69- Thermometer is
70- The thermometer is used in measuring the human body
temperature, while thermometer is used to measure the liquid
temperature.
71- The idea of thermometer operation is changing the of the liquid
inside it by the changing of the
72- The medical thermometer contains That prevents the liquid
from returning back to the bulb.
73- The temperature of the normal body is
74- You should the medical thermometer before using it.
75- The medical thermometer sterilized by using before using.
76- Mercury hascolor, and it is a conductor of
electricity.
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77- The degree of the liquid thermometer starts from	the transfer of ansfer of heat lators. uctors.
85- The heavy clothes areconductors of heat. 86	on.
Question (2) Give reason for each of the following:  1- There are gabs between the railway bars.	
2- We wear the heavy clothes in winter.	
3- The mass of a body on the Earth is equal to its mass on moon.	
4- Weight of an object on moon equals (1÷ 6) of its weight on Ea	
5- Plastic is used to make the handles of the iron utensils.	••••••
6- Cooking utensils are made up of the aluminum.	
7- In cold countries, the windows are made of two sheets contain	ns air.
8- The importance of heat.	•••••
9- The presence of constriction in the medical thermometer.	•••••
10- You shouldn't press on the medical thermometer with your te	
11- Mercury is used in manufacturing of thermometers.	
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27- The weight of 3Kg mass object larger than the weight of 1Kg object.
26- The effect of the gravity doesn't appear in the spacecraft.
25- The astronauts appear as swimmer in the space.
24- The mass of an object on moon = its mass on Earth.
23- Mass of 10 bananas is equal to mass of 2 oranges.
22- We use plastic in manufacturing the handles of iron.
21- We wear the wool clothes in winter.
20- Wood is used in manufacturing of the handles of cooking pots.
19- Aluminum is used in manufacturing of cooking utensils.
18- There is a space left between the sheets of the windows in the cold countries.
17- There are spaces between the railway's bars.
16- Heat has an important factor in the industry.
15- Heat is one of the most important energy that we use in our daily life.
14- The medical thermometer is shaking before using.
13- The degree of medical thermometers ranges between 35° c and 42° c.
12- Medical thermometer is not used in the measurement of liquids temperature.

28- Weight is different from planet to another.	
29- Weight on moon is smaller than weight on Ea	
30- Weight on Earth is larger than weight in airpl	
Question (3) Write the scientific term	
	_ ()
2- The materials that let heat flow through.	()
3- The windows that made of two glass sheets con	•
3- The windows that made of two glass sheets con	
4- The increasing of the liquid volume by heating	()
5- The fastest metal in heat conducting.	`
6- The materials that don't let heat flow through.	
7- The measuring unit of mass which equals $= 1 1$	
	()
8- The force with which the body is attracted to the	
	()
9- The measuring unit of weight which = $100$ gm.	· ·
10- The measuring device of weight.	()
11- A space body, its attraction force $(1 \div 6)$ from	the Earth's gravity.
	()
12- Anything has mass.	()
13- The measuring unit of mass that equals to 100	
	()
14- The measuring unit of mass that equals to the	· ·
	()
15- A scale that is used to measure the small mass	
	()
16- A scale that is used to measure the masses of	
	()
17- A device that is used in measuring the temper	
	()
18- A device that is used in measuring the temper	
	()
19- A device used to measure the temperature of	
	()
20- The thermometric substance that is used in the	ermometers.
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<del>r 5 ` `</del>	,

	)	
21- The modern thermometer in which the temperatu	•	
	)	
22- The liquid that is used in sterilizing of thermome		
	)	
	)	
	)	
25- A form of energy that transfer between two differ		
	)	
26- The degree of hotness or coldness of the body. (.		
27- A device used to measure the temperature. (		
27 It device used to measure the temperature.		
Question (4) Put $()$ or $(\times)$ and correct the	e false ones:	
1- All materials are good conductors of heat.	( )	
2- Glass is bad conductor of heat.		
3- Weight increases as the object becomes far from the	he center of the	
Earth.	( )	
4- Mass differs according to the planet where the obj	ect exist.	
5- Aluminum and copper are used in the iron and ute		
6- Aluminum is faster in conducting heat than iron.	( )	
7- Air is a good conductor of heat.	( )	
8- Two arm scales is used in human body measurements	ent.	
9- Weight of the object increases as its mass increase	• • •	
10- Mass differs from place to another.	( )	
11- Celsius thermometer is used in measuring the human temperature.		
	( )	
12- Celsius thermometer graduation starts from zero	to 100.	
13- Medical thermometer is used in measuring the lie	· · ·	
-	( )	
14- There is a constriction in the Celsius thermomete	rs.	
15- The thermometric liquid is water.	( )	
16- Medical thermometer graduation starts from 35 to	o 42.	
17- Alcohol is the liquid which used in the medical the		
18- All materials are good heat conductors.	( )	
19- Wood is one of the good heat conductors.	( )	
20- Boilers and utensils are made of plastic.		
21- Handles of utensils are made up of copper.	( )	
22- Aluminum is one of the bad conductors.	( )	
23- Copper is slower in conduction the heat than iron	· ( )	
	( )	

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24- Heat indicates to the hotness or coldness.	(	)
25- Barometer is used in temperature measurements.	(	)
26- Heat transfer from hot to cold bodies.	(	)
27- Copper doesn't let heat flow through it.	(	)
28- Weight depends on the amount of matter inside the objects.	(	)
29- Mass of the gold can be measured by using two arm scales.	(	)
30- The force that needs to move an object increases as its mass		,
increases.	(	)
31- One Kg = $100$ gm.	(	)
32- Mass of an object is the reason of the falling of objects.	(	)
33- Mass unit is Cm and it = the mass of one paper clip.	(	)
34- Weight is the force that attracts objects towards Earth.	(	)
35- The gravitational force that affects on 200 gm apple = 1 Newton	n.	
	(	)
36- Weight is measured with two arm scale.	(	)
37- Mass of an object is one of the factors that affect its weight.	(	)
38- As the mass of an object increases, its weight decreases.	(	)
39- Weight = $Mass \times 10$ .	(	)
40- Weight on moon = weight on Earth.	(	)
41- Mass of Earth is larger than mass of moon.	(	)
42- As the mass of a planet increases, its gravitational force decreases	ses.	Í
	(	)
43- Weight of an object on moon = 6 times its weight on Earth.	(	)
44- As the distance away from Earth's center increases, the weight		
decreases.	(	)
45- Weight is constant and doesn't change from place to another.	(	)
<del></del>		

#### Question (5) Choose the correct answer:

- 1- The mass of two paper clip = (1 2 3 4) gm.
- 2- (Mass weight length) is the amount of matter in an object.
- 3- (Sensitive scale arm scale digital scale) is used to measure the mass of chemicals.
- 4- (Mass weight volume) depends on the amount of matter.
- 5- Masses of an objects at the balancing (more than equal smaller than) all the masses on the other arm.
- 6- Mass is (constant changeable renewable) value.
- 7- Mass of an object (decreases increases don't change) by the changing of the place.

- 8- 2 Kg = (2-3-1) liter of distilled water.
- 9- Half Kg = (50 5 500 5000) gm.
- 10- Mass (affects upward affects downward have no direction)
- 11- The mass of an object on the moon = 10 Kg, so its mass on the Earth = (Zero Kg 10 N. 60 Kg. 60 N.)
- 12- Weight always affects to (the sky center of the Earth pole of the Earth)
- 13- Weight is measured by the (spring two arms balance) scale.
- 14- As the mass of an object increase, its weight (increases decreases doesn't change)
- 15- As the mass of the planet (increases decreases don't change), the weight of the object on it decreases.
- 16- Weight on the moon = (1/4 the same -1/6) its weight on Earth.
- 17- As the distance from the center of Earth decreases, the weight (increases decreases don't change)
- 18- If the weight of a body in a balloon is 70 N., the weight of the same person on the Earth is (68 69 70 71).
- 19- Newton equals nearly the weight of a body its mass = (100 1000 1 10) gm.
- 20- The weight of a body its mass 200 gm on the Earth = (2-200-20-2000)
- 21- ( Kg-N- balance scale spring scale ) is one of the devices to measure the weight.
- 22- If the weight of an object is 20 N. so its mass = (2-20-200-2000) Kg.
- 23- Weight is measures with (Gm liter Newton Kg.)
- 24- We feel coldness when (lose heat gain heat touch hot cup)
- 25- We feel hotness when (lose heat gain heat touch cold cup)
- 26- We feel hotness when (heat transfer to the body –heat transfer from body touch cold cup)
- 27- We feel coldness when (heat transfer to the body –heat transfer from body touch cold cup)
- 28- Heat transfer from the hot body to the (upper cold lower hot ) body.
- 29- A metal ball its volume =  $3 \text{cm}^3$ , after heating its volume becomes ( $1 \text{cm}^3 4 \text{cm}^3 3 \text{cm}^3 2 \text{cm}^3$ )

- 30- All the following are used in the manufacturing of cooking utensils except ( iron aluminum copper wood)
- 31- Temperature is measured by (sensitive balance cylinder thermometer ruler)
- 32- Heat transfer from a body of 35 to that of (32 35 38 39)
- 33- (Wood iron plastic glass) is one of the heat conductors.
- 34- (Aluminum iron wood copper) is one of the heat insulators)
- 35- Handles of cooking pots are made up of (copper plastic steel aluminum)
- 36- One of the following is an example for the heat insulator , it is ( Iron-copper-wood-aluminum )
- 37- Heavy clothes are wear in the winter because it is ( heat insulators good conductors heat protectors)
- 38- Tea boilers and cooking utensils are made up of (( heat insulators good conductors heat protectors).
- 39- (Heat water electricity) is one of the most important form of energy that we use in our daily life.
- 40- ( Paper textiles glass all the previous ) are \is the industry that we use heat in it\them
- 41- (Temperature heat thermometer) is the degree of hotness or coldness.
- 42- (Thermometer heat temperature) is the device that used to measure the temperature.
- 43- (Heat conductors heat insulators solids) are from the materials that allow heat to flow through.
- 44- (Heat conductors heat insulators solids) are from the materials that don't allow heat to flow through.
- 45- Air and all gases are (good bad both of them) conductor of heat.
- 46- The best metal in heat conductors is ( aluminum iron copper )
- 47- The idea of making thermometers is:
  - a- Changing the gas volume with the changing of temperature.
  - b- Changing the liquid volume with the changing of temperature.
  - c- Changing mass of gases with the changing of temperature.
  - d- Changing mass of liquids with the changing of temperature.
- 48- Medical thermometer differs from Celsius in:

- a- The type of liquid in the bulb.
- b- The presence of constriction
- c- The material that made up of
- d- The effect of heat on the liquid
- 49- All the following is the properties of mercury as a thermometric liquid except :
  - a- Good heat conductor
  - b- Regular expanded material
  - c- Doesn't stick with glass walls
  - d- Given the limited extent to measure temperature
- 50- The degree of the medical thermometer ranges between:
  - $a 35 42^{0} c$
  - $b-35-45^{0} c$
  - $c-32-42^{0}c$
  - $d-32-45^{0} c$
- 51- The thermometer which is used in measurement of human temperature is :
  - a- Medical thermometer
  - b- Celsius thermometer
  - c- All the previous
- 52- The part in the medical thermometer that prevents the returning of mercury fast to the bulb is called :
  - a- Sticker
  - b- Constriction
  - c- Height
- 53- Medical thermometer is sterilizes using (alcohol hot water cold water)
- 54- Medical thermometer placed under tongue for (1-4-2) minutes.
- 55- it is impossible to depend on the (thermometer medical thermometer hands) in the measurement of temperature.
- 56- Liquids (expands contracts decreases in volume) by heating.
- 57- Mercury is (regular irregular both of them ) expanded liquid.
- 58- Mercury has (silver gold red) color.
- 59- The melting point of water is  $(zero 100 200)^0$  c.
- 60- The boiling point of water is  $(Zero 100 300)^0$  c.

61- The graduation of the Celsius thermometer is between $(0,100 - 0,200 - 0,200)$ are correct).	
Question (6) Problems:	
1- Calculate the weight of a body, its mass on Earth is 3 Kg.	
2- Calculate the mass of a body its weight is 200 N.	
3- Calculate the weight on moon for a body its weight on Earth's surface is 60 Kg.	
4- A body of mass 50 Kg on moon surface. Calculate: a- Its weight on Earth. b- Its weight on moon.	
5- A stone is placed on one arm of a scale; the summation of all masses	
was 300 gm on the other arm:	
<ul><li>a- What is the mass of the stone and the direction of this mass</li><li>b- What is the weight of this stone and the direction of this weight</li></ul>	
c- What is the effect of changing the place for each mass and weight	
•••••••••••••••••••••••••••••••••••••••	
6- If the mass of a ball on Moon's surface is 50 gm, find the mass on	
Earth's surface. Give reason for your answer.	
Laring sarrage. Give reason for your answer.	

7- If the mass of a body equals to 3 paper clips, find body.	the mass of this
8- If the mass of a body equals 1\4 liter of water, find	d the mass of the body.
9- If the weight on Earth is 600 N. calculate its weig	
10- If the weight is 20 N. calculate its mass.	•••••
11- An object with mass = 200 gm, calculate its weight	
<ul><li>12- If the mass on Earth is 10 Kg, calculate:</li><li>a- Its mass on moon.</li><li>b- Its weight on Earth.</li><li>c- Its weight on moon.</li></ul>	Newton
13- A body of mass 5 Kg. on Earth. Calculate its ma Give reason for your answer.	
14- If the mass on moon is 60 Kg. Find its mass on I for your answer.	
15- Calculate the weight of an object = 3 Kg. (on Ea	rth).
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16- (	Calculate the mass of a	n object its weight is 200	Newton.
17- Y	What is the weight of a		weight on Earth is 60 Kg.?
	f the mass of a body o Its weight on Earth.	n moon is 60 Kg. Calcula b- Its weight or	ate:
19- A bag of weight on moon = 10 Newton. Different books have been put in it which has 3Kg mass. Calculate:  a) The mass of the bag with the books on Earth. b) The weight of the books only on the moons.  Question (7) Compare between:			
<u>a-</u>	Point of comparison	Heat conductors	Heat insulators
	Definition	<u>Ireat contactors</u>	Ticat madators
	Usage		
<u>b-</u>			
	Point of comparison	<u>Mass</u>	<u>Weight</u>
	Definition		
	Measuring unit		

Measuring devices	
Direction	
Changing by the	
place	

<u>C-</u>

Point of comparison	Medical thermometer	Celsius thermometer
uses		
Graduation		
Liquid inside		
Presence of		
constriction		

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#### Q (1) Answer the following:

1- What are the sources of Oxygen gas in the air?		
2- What are the components of the Earth's atmosphere?		
3- Mention the importance of the atmosphere.		
4- What are the properties of oxygen gas?		
5- What are the <u>uses</u> and the <u>importance</u> of Oxygen?		
( M		
6- Mention the <u>benefits</u> and the <u>harms</u> of Carbon dioxide.		

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7- What are the properties of carbon dioxide?	
8- What are the sources of carbon dioxide?	
9- What are the <u>uses</u> and the <u>importance</u> of carbon dioxide?	
10- Define Nitrogen gas.	
11- Where the Nitrogen gas exists?	
12- Mention the properties of Nitrogen gas.	
13- What are the <u>uses</u> and the <u>importance</u> of Nitrogen?	
Q (2) Write the scientific term:	••••••
1- An important gas for living, it represents (21%) from the vol	
<ul><li>2- The main source of oxygen gas.</li><li>3- The mixture of gases that surrounds the Earth and attracted to</li></ul>	
4- A gas used recently in filling the tires, its volume still consta	()  Int by changing the heat.  ()
<ul><li>5- The main source of nitrogen gas artificially and in labs.</li><li>6- One of the nitrogen gas components that have an important result of the components.</li></ul>	cole in producing the
cements and fertilizers. 7- The chemical substance that used in the preparation of oxygen	
8- The catalyst that is used in preparation of the oxygen in labs.	() . ()
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9- The substance that increases the speed of the chemical real	ction without itself changing.	
10- The combination of oxygen gas slowly in the presence of	humidity.	
	()	
11- The combination of oxygen gas fast with the liberation of	f heat and light.	
	()	
12- The layer that is formed on the iron surface after its expo	sure to humid air.	
	()	
13- A layer of the atmosphere protects livings on Earth form	harms of the radiations.	
	()	
14- A flame used in melting or		
15- The gas that is responsible for the global warming which rise the temperature of		
Earth.	()	
16- The compound which used in detecting the Carbon dioxid	de gas.	
17- The compound which cause the turbidity of lime water de	uring the passing of carbon	
dioxide gas in.	()	
18- The formed substances when entering the magnesium rib	bon with carbon dioxide gas.	
	()	
19- A substance that is used in quick cooling for foods and m	edicine that affect by	
heating.	()	
20- A process in plants in which carbon dioxide use and oxygen gas librates.		
	()	
21- An element which was discovered by the scientist Ruther	ford and it is essential in the	
composition of proteins.	()	
22- A gas which is called killer		
23- A gas which is called with azote or lifeless.	()	
24- A type of plants which produce proteins from the air nitrogen by the help of nodular		
bacteria.	()	
25- A substance that is used in absorption of the carbon dioxi	ide from the air.	
	()	

1 is the main source of oxygen on the Earth.		
2- Nitrogen represents % from the air.		
3- Oxygen represents from the air.		
4- There is a large amounts of in the atmosphere.		
5- Nitrogen exists in the atmosphere in the State which consis atoms.	sts	of
6- Oxygen compressed in the cylinder and uses in the and .	. <b></b>	•••••
7- The global warming and rising of the temperature is the results of gas.		
8- Carbon dioxide gas is formed of atoms and its symbol is		
9- Carbon dioxide gas produces as a result of burning of organic matter	as	
10	$O_2$ .	
11- The percentage of the carbon dioxide in the air is		
12- The symbol of the nitrogen gas is		
13- The percentages of the nitrogen gas in the air		
14 is formed through the lightning in the air.		
15- Nitrogen gas is collected by during its preparation in the	lab	
16- Nitrogen gas properties are, and	, <b></b>	
17- Nitrogen gas uses are, and	• • • •	••••
Q (4) Put (√) or (*) and correct the false one:  1- It isn't important to maintain the vegetation on the Earth.	(	)
2- Atmosphere is a mixture of gases surrounds the Earth.	(	)
3- Oxygen protects Earth by absorbing the ultraviolet rays that comes of space.	ıt fr (	om the
4- Oxygen occupies fifth the volume of the air.	(	)

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Q (5) Give reason for each of the following:  1) Oxygen percentage is constant in the air although it consumed in the process.	e res	spiration
25- Atmosphere composed of mixture of gases surrounds the Earth.	(	)
24- Oxygen helps in burning and doesn't help in fire extinguishing.	(	)
23- Nitrogen is colorless, tasteless and helps in burning.	(	)
22- Oxygen represents 78 % of the air.	(	)
21- Nodular bacteria fix the oxygen in the legumes as bean and clover.	(	)
20- Nitrogen gas reacts with most other elements.	(	)
19- Nitrogen gas is composed of two hydrogen atoms.	(	)
18- Nitrogen is called "azote" and it means gas of the life.	(	)
17- Legumes as pea, clover and soybean get uses from the nitrogen.	(	)
16- O <sub>2</sub> is colorless, odorless and doesn't help in burning.	(	)
15- Nitrogen can be condensed to solid state.	(	)
14- Nitrogen is used commercially in the cement and fertilizers manufacture.	actu	ring. ( )
13- Nitrogen gas used in filling some kinds of lamps.	(	)
12- CO <sub>2</sub> used in the photosynthesis process and O <sub>2</sub> librates.	(	)
11- Nitrogen used in fire extinguishing.	(	)
10- Human suffers suffocation after breathing CO <sub>2</sub> in.	(	)
9- When you blow in the clear lime water it becomes turbid.	(	)
8- The increasing of oxygen gas in the air causing the global warming phenomenon.	(	)
7- The increase of CO <sub>2</sub> percentage in the air causing the suffocating.	(	)
6- Nitrogen is important for respiration and burning of food in the cells	s. (	)
5- Oxygen can combine with most elements directly forming oxides.	(	)

2) During its preparation in the lab, Oxygen can be collected by replacing water downward.	
3) Atmosphere has a large important in the life.	
4) Clear lime water becomes turbid by blowing in it.	
5) Environment suffers from the increasing in the CO.	
5) Environment suffers from the increasing in the CO <sub>2</sub> gas.	
6) The importance of CO <sub>2</sub> gas in life continuing.	
7) CO <sub>2</sub> can't be collected by replacing water as oxygen.	
8) CO <sub>2</sub> gas used in fire extinguishing.	
9) CO <sub>2</sub> is called the silence killer.	
10) Lime water is used in detecting the carbon dioxide gas.	
11) Nitro can is used in filling the time of the com-	
11) Nitrogen is used in filling the tires of the cars.	
12) Nitrogen gas is used in preserving petroleum.	
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14) Nitrogen gas is called azote and it mea	ans lifeless.
,	
15) Yeast is added to the paste in bread ma	_
16) In the nitrogen gas preparation, air pas	·
17) Nitrogen enters in the composition of t	
Q (6) Correct the underline wor	ds in the following statements:
1) The increase of the <u>oxygen</u> percentage is	in the atmosphere responsible for the
global warming phenomenon.	
2) Nitrogen is an essential element in comp	position of <u>carbohydrates</u> .
3) Oxygen enters in the composition of the	e ammonia gas that is used in cement
production.	
4) The decrease in the oxygen percentage	is compensated through the combustion
processes.	
5) Manganese dioxide decomposes in the p	
, ,	presence of the catalyst into water and
oxygen.	presence of the catalyst into water and
,	
oxygen.	
oxygen.  6) Oxy acetylene flame is produced by the	burning of methane in the presence of
oxygen.  6) Oxy acetylene flame is produced by the nitrogen.	burning of methane in the presence of
oxygen.  6) Oxy acetylene flame is produced by the nitrogen.	burning of methane in the presence of  on the Earth.
oxygen.  6) Oxy acetylene flame is produced by the nitrogen.  7) Ozone layer <u>harms</u> the living organisms	burning of methane in the presence of  on the Earth.

# Unit (Four ) revision questions

(1)	Different	questions
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Q(1) Define the nervous system.
Q (2) what is the function of the nervous system?
Q (3) Mention the composition of the nervous system.
Q (4) what is the components of the nerve cell?
Q (5) Mention the structure of the central nervous system.
Q (6) what is the function of the cerebral hemispheres?
Q (7) write about: (Cerebellum - Medulla oblongata - spinal cord).
Q (7) write about: (Cerebellum - Medulla oblongata - spinal cord).
Q (7) write about: (Cerebellum - Medulla oblongata - spinal cord).
Q (7) write about: (Cerebellum - Medulla oblongata - spinal cord).
Q (7) write about: (Cerebellum - Medulla oblongata - spinal cord).  Q (8) Define the Peripheral nervous system.
Q (8) Define the Peripheral nervous system.

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Q (10) Mention different examples for the reflex action.
Q (11) How can you maintain your nervous system healthy?
<u>Q (22) ; 10)                                 </u>
0 (10) 5 (1)
Q (12) Define movement.
Q (13) what is the function of movement.
Q (14) what is the components of the locomotory system.
Q (1+) What is the components of the locomotory system.
Q (15) What is the components of the axial skeleton?
Q (16) what is the components of appendicular skeleton?
<u> </u>
Q (17) mention the types of joints.
Q (18) what are the types of muscles?
Q (19) how can we maintain our locomotory system healthy?

### (2) Complete the following:

1- Types of joints are, and and
2- Types of muscles are and and
3- The body of the cell contains and and
4- Movement is
5- From the examples of the reflex action and and
6 pair of nerves are produced from the spiral cord , called nerves.
7 pair of nerves emerges from the brain , called nerves.
8 extends in a canal inside the vertebral column in for the human.
9 is responsible for the balancing of the body during its movement.
10- The brain hemisphere contains the centers of and and
11- The brain of adult person nearly = Kg.
12- The building unit of the nervous system is
13- Nervous system consists of two main systems , they are and
14- Number of the brain nerves arepairs.
15- The grey material in the spiral cord has a letter shape.
16- Cerebellum responsible for
17 controls the reflex action.
18 surrounds with a fatty cover.

## (3) Tick write or wrong and correct the wrong:

1- The centers of sense and movement are exist	's in the spinal cord	) .k	)
2- Brain is composed of two hemispheres, cereb	ellum, spinal cord a	ınd t	he
skull.		(	)
3- Spinal cord extends in a canal in the vertebro	al column at the bad	ck of	f
human.		(	)
4- Appendicular nervous system is the nerves th	at emerge from th	ie.	•
central nervous system.	3	(	)
5- Involuntary muscles are the muscles that wor	k automatically an	d yo	u
can't control its movement.	,	(	)
6- Human body contains 650 muscles, the smalle	st is found in the e	ear.	•
•		(	)
7- Muscles of digestive system, blood vessels ar	d urinary bladder	are	•
examples of the voluntary muscles.	,	(	)
8- Appendicular skeleton consists of upper and l	ower limbs bones.	(	)
9- Locomotory system consists of two main syst		etal	
and muscular systems.		(	)
10- The knee joint is freely movable joint.		(	)
11- The shoulder joint is one of the immovable joint	oints.	(	)
12- Joints join muscles with bones.		(	)
13- Joints are the connection between two bone	S.	(	)
1911 = 0 01 H = 0 0 10 G	<b>L</b> - 40-00		
(4) Write the scientifi	c reldi	•	
1) The building unit of the nervous system.	(	.)	
2) Cylindrical part surrounds with a fatty tissue			
3) The main control center in the body that dire	·	•	
ideas, behaviors and emotions.	(	.)	
4) The largest body of the brain that consists o	•	-	
left.	(		
5) It locates at the back area of the brain below			
	(	.)	
6) They are the nerves that emerge from the co	entral nervous syst	em.	
	(	)	
7) It is located in front of the cerebellum and c	onnects the brain		
with the spinal cord.	(	)	
pg. 27	Miss / Rana Hus	sein	

8) It extends in a channel within a series of th	ie vertebrates in the
backbone.	()
9) The ability of the living organism to change	its position from place
to another.	()
10) It consists of axial and appendicular skelet	
11) A body box contains cavities for the eyes,	
	()
12) It consists of $33$ pairs of vertebrates with	n cartilages between
them.	()
13) It consists of $\underline{12}$ pairs of ribs, the first $\underline{10}$	of it connects
anteriority with sternum.	()
14) It prevents any movements as those which	connect the skull
bones.	()
15) It allows the movement in one direction as	the knee and elbow.
	()
16) It allows the movement in all directions as	the shoulders, wrist
and thigh.	()
17- They are a long strips that fixe muscles wi	th bones.
	()
18- The muscles that you can move it willingly	such as the limbs trunk,
face and abdominal wall muscles.	()
19- Types of muscles that work automatically	and you can't control or
even be aware of their movements.	•
20- The involuntary response from the body to	
stimuli.	()
21- A part of the nervous system which is resp	•
action.	()
22- An organ which connects the brain with th	
responsible for the involuntary processes.	•
23- An organ consists of grey matter which ta	
surrounded by a white matter.	()
24- The skeleton that contains the skull, backl	,
- 47- THE SKEIETON THAT CONTAINS THE SKIIL DACK	oone ana rid caae
24- The skeleton that contains the skull, back	<u> </u>
	()
25- The skeleton that contains the upper and	() lower limbs.
	() lower limbs. ()

## (5) Compare between:

1-

Skull	Backbone	Rib cage

2-

Voluntary muscles	Involuntary muscles

3-

Immovable joints	Slightly movable joints	Freely movable joints

4-

Bones of lower limbs	Bones of upper limbs	

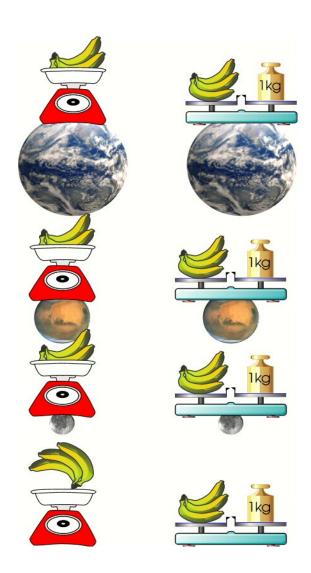
### (6) Give reason for:

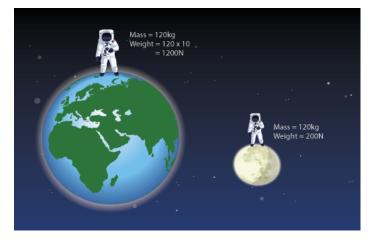
1- Harming of the medulla oblongata causing the death.
2- Brain locates inside the skull and spinal cord locates inside the vertebrates.
3- It is necessary to avoid tranquilizers without doctor description.
4- Quick pull hands after touching hot body suddenly.
5- Muscles play an important role in the human movement.
6- Rib cage surrounds heart and lungs.
(7) Choose the correct answer:
<ol> <li>is surrounded with fatty layer.         (Axon of nerve cell - cerebellum - spinal cord)</li> <li>Reflex action takes place in</li></ol>

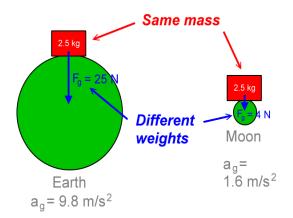
Miss / Rana Hussein

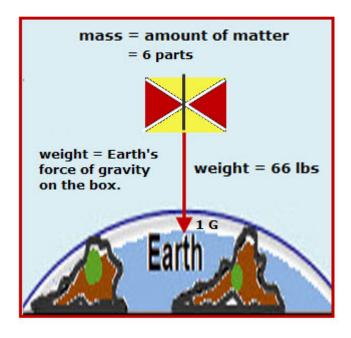
4) connects bones with muscles.  (Strips - joint - tendons)
5) Brain joints are
(Freely movable - immovable - slightly movable)  6) Number of the brain nerves is pair of nerves.
(31 - 21 - 12) 7) The grey matter in the spinal cord hasshape. (H - F - A)
8) Cerebellum is responsible for
(Thinking processes - balancing of the body - reflex actions) 9) is one of the nerve cell body components. (Blood vessels - fatty layer - dendrites)
(8) Mention the location of these organs in the human body:
1) Cerebellum
2) Spinal cord
3) Cerebrum hemispheres
4) Medulla oblongata
5) Grey matter in the shape of letter (H)
(9) What will happen when:
1- There aren't any joints between the bones.
2- You touch a hot body suddenly by your hand.
3- The thigh joint is slightly movable joint.
4- The front muscle relaxes and back muscle contract in the arm.
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5-Setting for long times in front of computers.
6- Continues exposing for polluted air of factories.
7- Nearing an external body from the eye.
(10) Mention one function of:
1- Cartilages between the vertebrates of the backbone.
2- Nerves.
3- Tendons.
4- Cerebellum.
5- Joints.
6- Cerebrum hemispheres.
7- Rib cage.



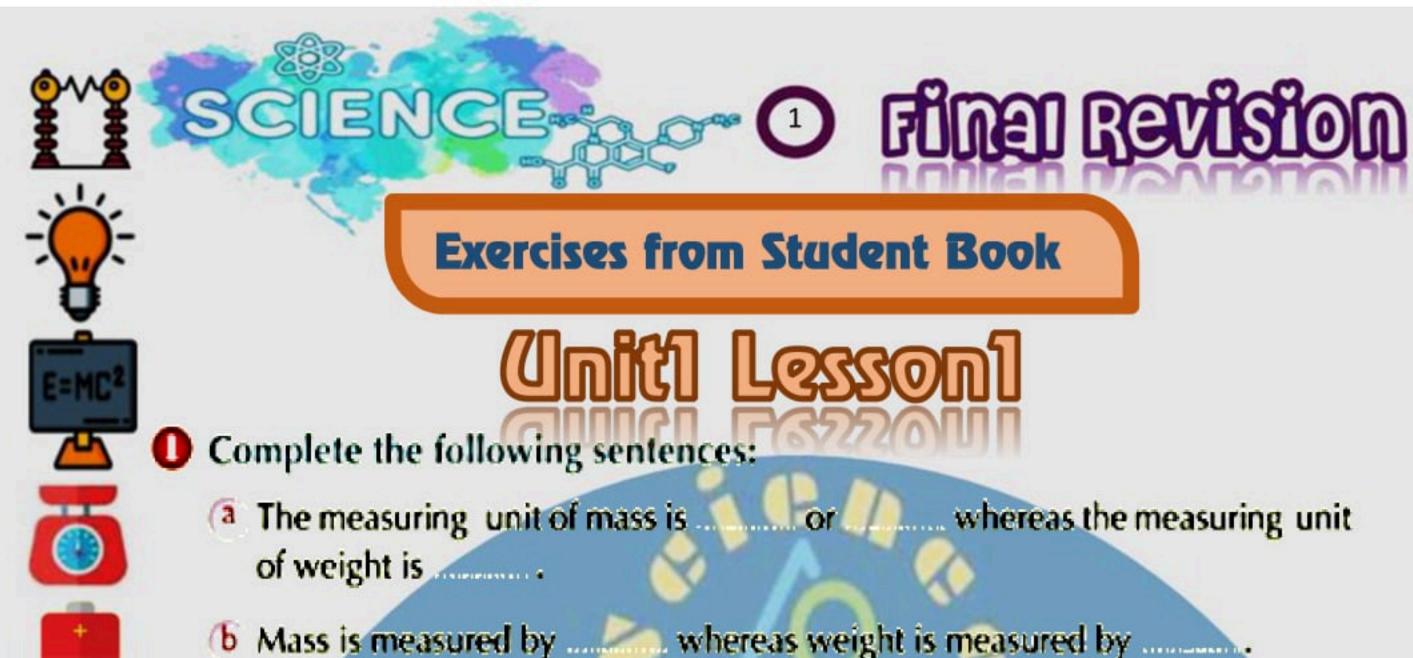






pg. 33

Miss / Rana Hussein



### **Exercises from Student Book**

- Complete the following sentences:
  - or whereas the measuring unit The measuring unit of mass is
- Write the scientific term:
  - The amount of matter in an object.
  - The force with which a body is attracted to the Earth.
  - The measurement unit of mass which is almost equal to a mass liter of water.
  - The measurement unit of weight which is almost equal to a mass 100 grams.
- An object whose mass on Earth is equal to 6 kg. Calculate its weight on both surfaces of the Earth and the moon.
- The following pictures illustrate the steps of calculating a liquid mass using the digital scale. Look at the pictures and then calculate the mass and weight of this liquid.



▲ Scale reading = 119.76 gm



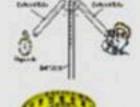
▲ Scale reading = 186.73 gm





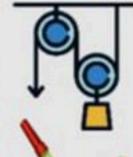




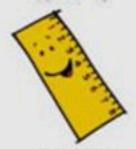














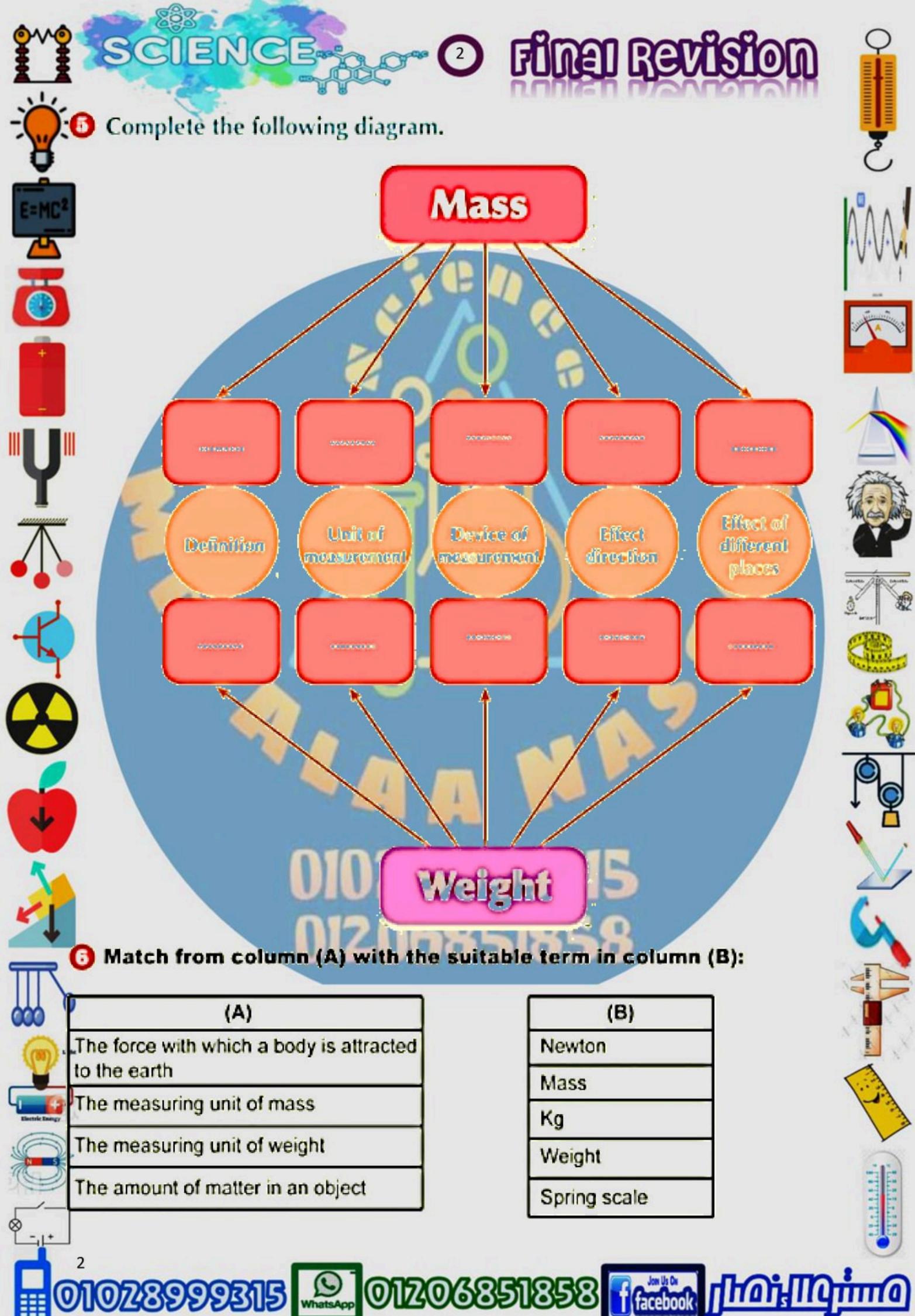




























# SCIENCE O FINE REVISION







### Mass

### Weight





The amount of matter in an object

The force with which a body is attracted to Earth







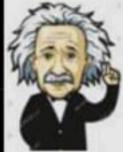
Newton





A balance scale

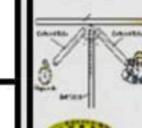
A spring scale





Has no direction

It is towards the center of the Earth





Constant(doesn't change with the change in place)

Changes from place to another



#### Answer Q6

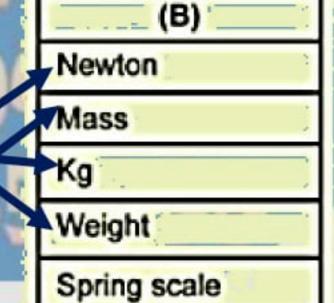


(A) The force with which a body is attracted to the earth

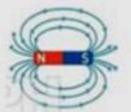
The measuring unit of mass

The measuring unit of weight

The amount of matter in an object













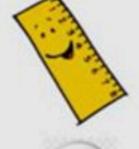














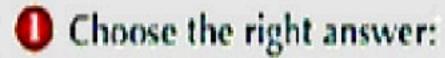


# ENCE O FINE REVISION



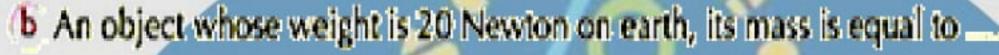








- The device of measuring weight is \_\_\_\_
  - one-arm scale.
- 1 two-arm scale.
- digital scale.
- spring scale



- 10 kg.
- 2 kg.
- 200 kg.
- ② 20 kg.



Complete the following sentences:

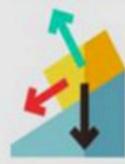
- Mass is measured by \_\_\_\_\_ whereas weight is measured by \_\_\_\_\_.
- b Mass is the amount of matter that body contains. It does not change according to
- © An object's weight depends on \_\_\_\_\_, and \_\_\_\_

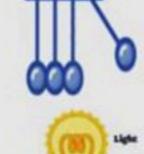


Fill in the following table:

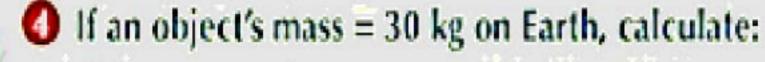




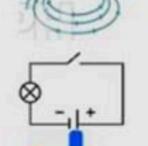




Point of Comparison	Mass	Weight
Definition		dr
Unit of measurement		
Device of measurement	2899	3515
Direction	06851	RER
Effect of different places		



- a Its mass on the moon.
- b Its weight on the Earth.
- c Its weight on the moon.









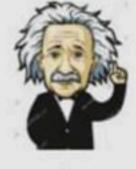


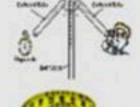




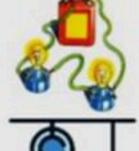


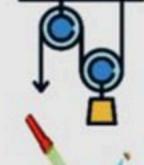






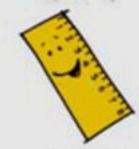


















# o fina revision







#### Answer Q1





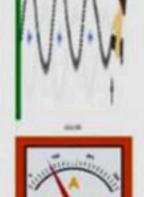
b- 2 Kg



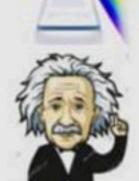
#### Answer Q2

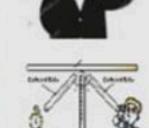
- a- Balance scale spring scale
- b- Place





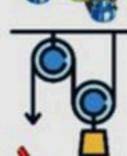








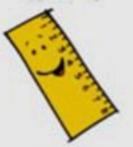


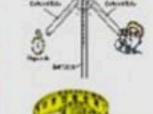


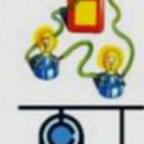














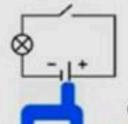




#### Answer Q3

Point of comparison	Mass	Weight
Definition	The amount of matter in an object	The force with which a body is attracted to the Earth
Unit of measurement	Ki'ngram or gram	Newton
Device of measurement	A balance scale	A spring scale
direction	Has no direction	It is towards the center of the Earth
Effect of different places	Constant (does not change with the change in place)	Changes from plant to another

- a-The mass on the moon = the mass on the Earth = 30 kg
- b-The weight of the object on earth = mass of object x = 30 x
- 10 = 300 Newton
- c-The weight of the object on moon = mass of object on earth /6 = 300/6 = 50 Newton



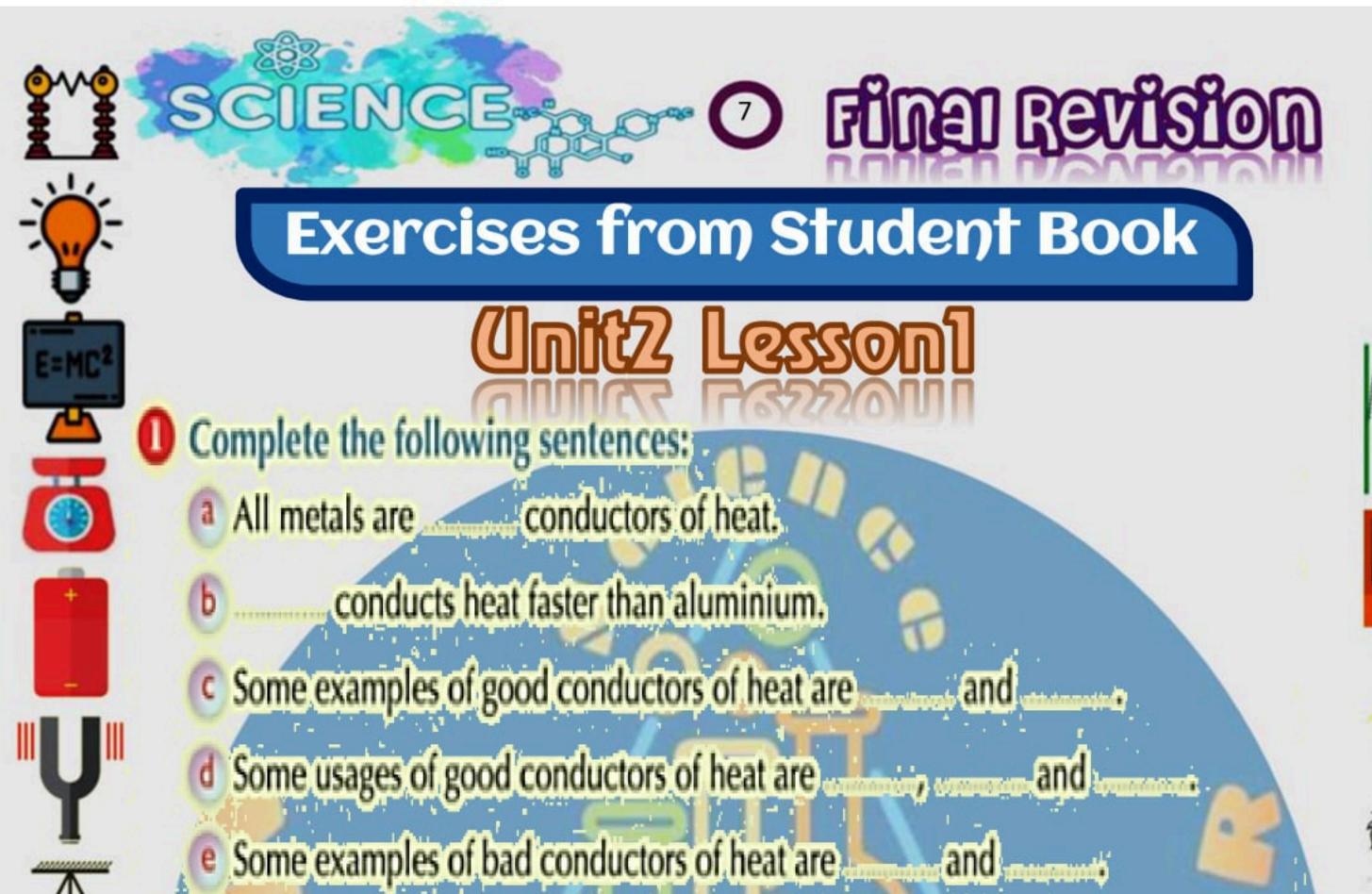


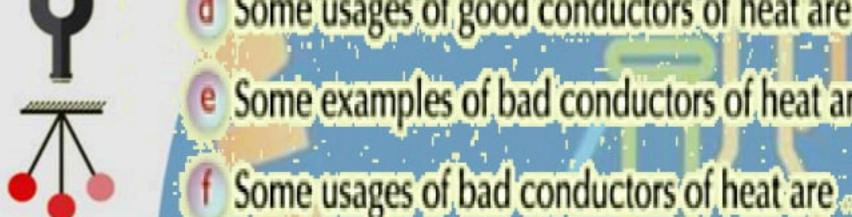




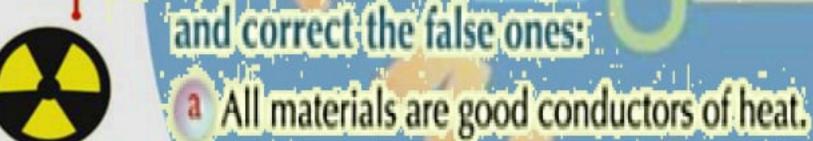








Put ( ) in front of the right statements and ( ) in front of the false statements



- Wood is a good conductor of heat.
- Cooking pots are made of plastic.
- d Handles of cooking pots are made of copper.
- e Aluminium is a bad conductor of heart.



- Materials that let heat flow through.
- b Materials that do not let heat flow through.











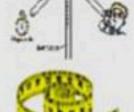




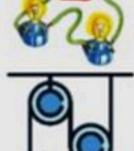






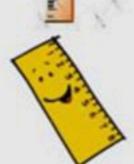






















# O Fine Revision



### **Model Answer**

#### Answer Q1

- a- good
- b- copper
  - c- iron aluminium
  - d- cooking pots kettles in houses heaters in factories
  - e- glass wood
  - f- making handles of cooking pots heavy blankets -woolen cloths

### Answer Q2

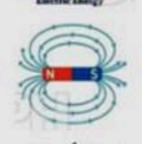
- a- (X) materials are good conductors and bad conductors
- b- (X) wood is a bad conductor of heat
- c- (X) cooking pots are made of aluminium
- (X) handles of cooking pots are made of plastic
- (X) Aluminium is a good conductors of heat

- a- Good conductors of heat (Heat conductors)
- b- Bad conductors of heat (Heat insulators)



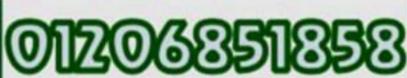










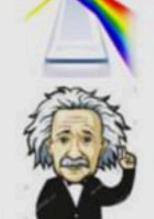


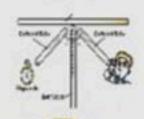






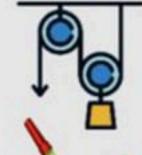


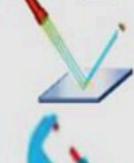




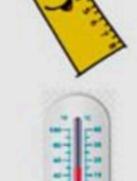




















Points of comparison	Heat conductors	Heat Insulators
Definition	They are the materials that let heat flow through	They are the materials that don't let heat flow through
Examples	Copper, aluminium, iron and stainless steel	Glass, wood, paper, plastic, wool, air, liquids and rubber
Uses	Making cooking pots and kettles	Making the handles of cooking pots, irons and kettles Making heavy blankets and woolen cloths

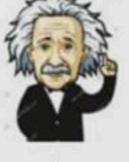


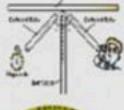






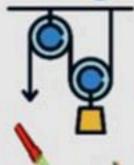




















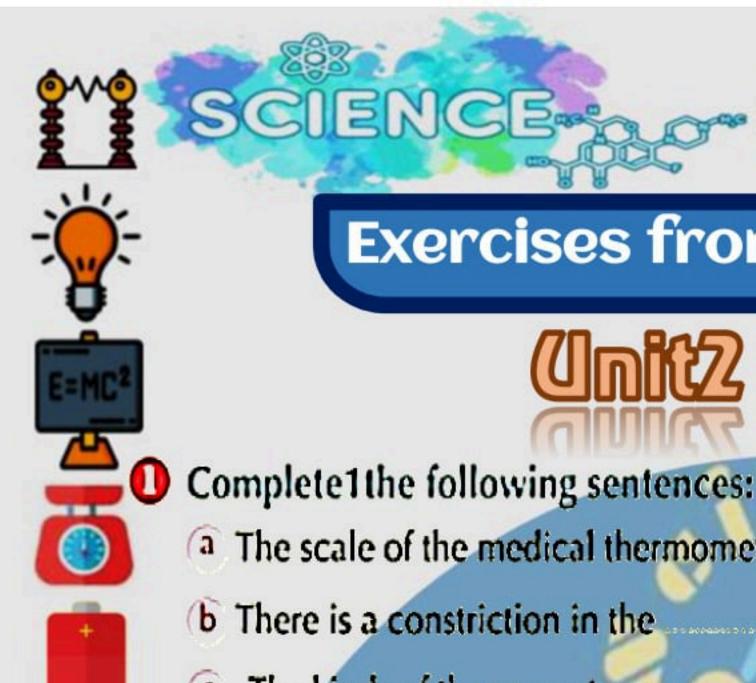










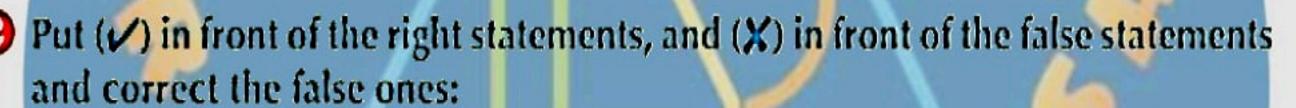


# The resision

### Exercises from Student Book



- a The scale of the medical thermometer starts from and ends at
- b There is a constriction in the thermometer.
- The kinds of thermometers are
- d The Celsius thermometer is used in whereas the medical thermometer is used in .......
- f) The water is freezed at ...... and boiled at ......



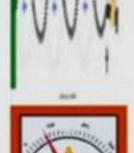
- The Celsius thermometer is used for measuring the temperature of the human being.
- b The scale of the medical thermometer starts from zero until 100 Celsius degree. (
- c The medical thermometer is used for measuring the temperature of liquids. (
- d There is a constriction above the bulb in the Celsius thermometer.
- e The used liquid in the medical thermometer is water.

Write the scientific term for each of the following statements:

- a A device used to measure the temperature of liquids.
- b A device used to measure the temperature of the human being.
- The liquid used in making thermometers.

Compare between the medical and the Celsius thermometer in structure and usage.

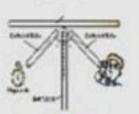






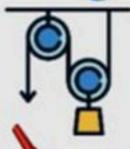




































### Model Answer



#### Answer Q1





b- medical



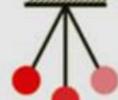
c- medical - Celsius



d- measuring temperature of liquids - measuring temperature of human



e- a device that is used to measure the temperature.



f- 0°C - 100°C



#### Answer Q2



(X) medical thermometer



(X) 35°C - 42°C



c- (X) Celsius thermometer



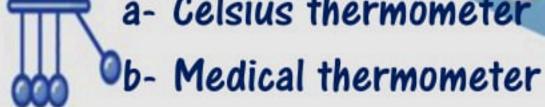
d- (X) medical thermometer



e- (X) mercury



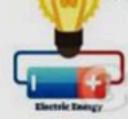
#### Answer Q3

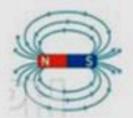


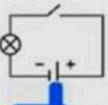
a- Celsius thermometer



-c- Mercury







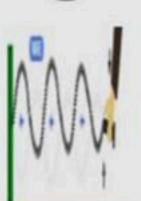


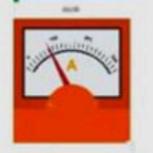


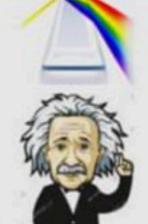


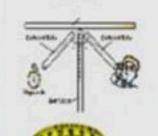




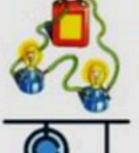


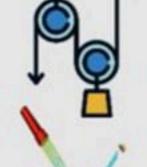






















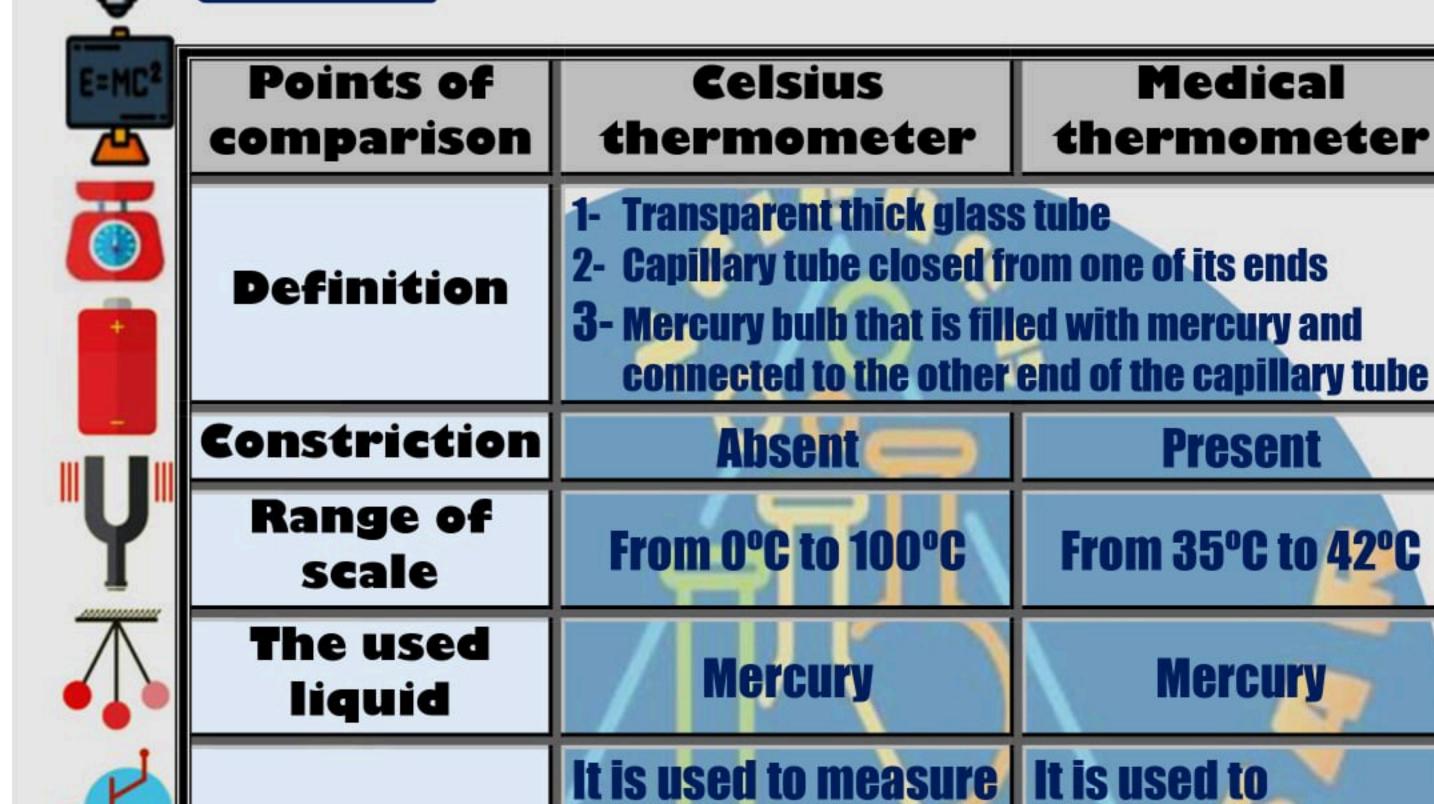




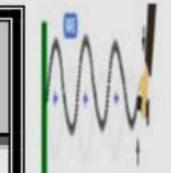




Usage



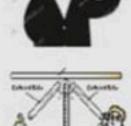
liquids

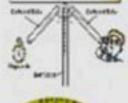






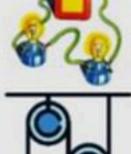


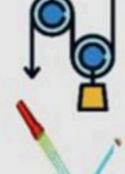






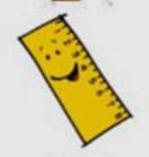








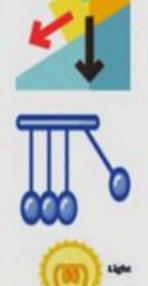




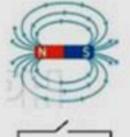


# 01206851858

the temperature of

















measure the

human body

temperature of the



6	M	1
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3		童
	•	X



# O Fine Revision

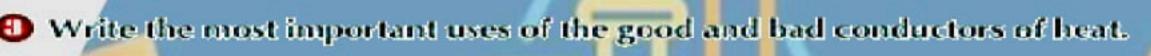


### Exercises on Unit 2

E-MC2	Complete the following sentences:    We measure temperature by using
	b is used in measuring temperatures of different liquids where in measuring the temperature of the human body.
	d and are good conductors of heat
	Write the scientific term for each of the following statements:



- A device used to measure temperature.
- b The materials that allow the flow of heat inside.
- The materials that do not allow the flow of heat inside.



Fill in the spaces of following tables:

Points of comparison	Medical thermometer	Celsius thermometer
Usage		
Structure		
Used liquid		
scale		6

Points of comparison	Good conductors of heat	Bad conductors of heat
Definition		
Usage		
Examples	103000	ADID

■ Put (✓) in front of the correct statements and (※) in front of the false one and correct the false ones:

- Medical thermometer is used in measuring the temperatures of different liquids.
- b The scale of the Celsius thermometer starts from 35° to 42°.
- Aluminum is a bad conductor of haet.
- d Wood is a good conductor of heat.

#### Write an explenation for each of the following:

- Mercury is used in thermometers.
- b The handles of cooking utensils are made of wood or plastics.
- Cooking utensils are made of stainless steal or aluminium.
- There is a constriction in the medical thermometer.







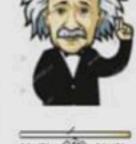


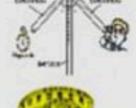




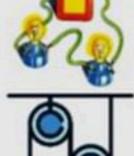


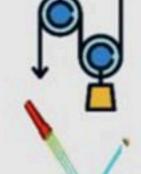










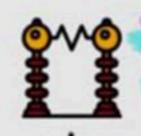
















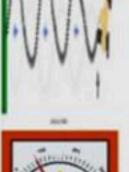




#### Answer Q1



- b- Celsius thermometer medical thermometer
- c- iron aluminium copper
- d- plastic wood glass







Answer Q3

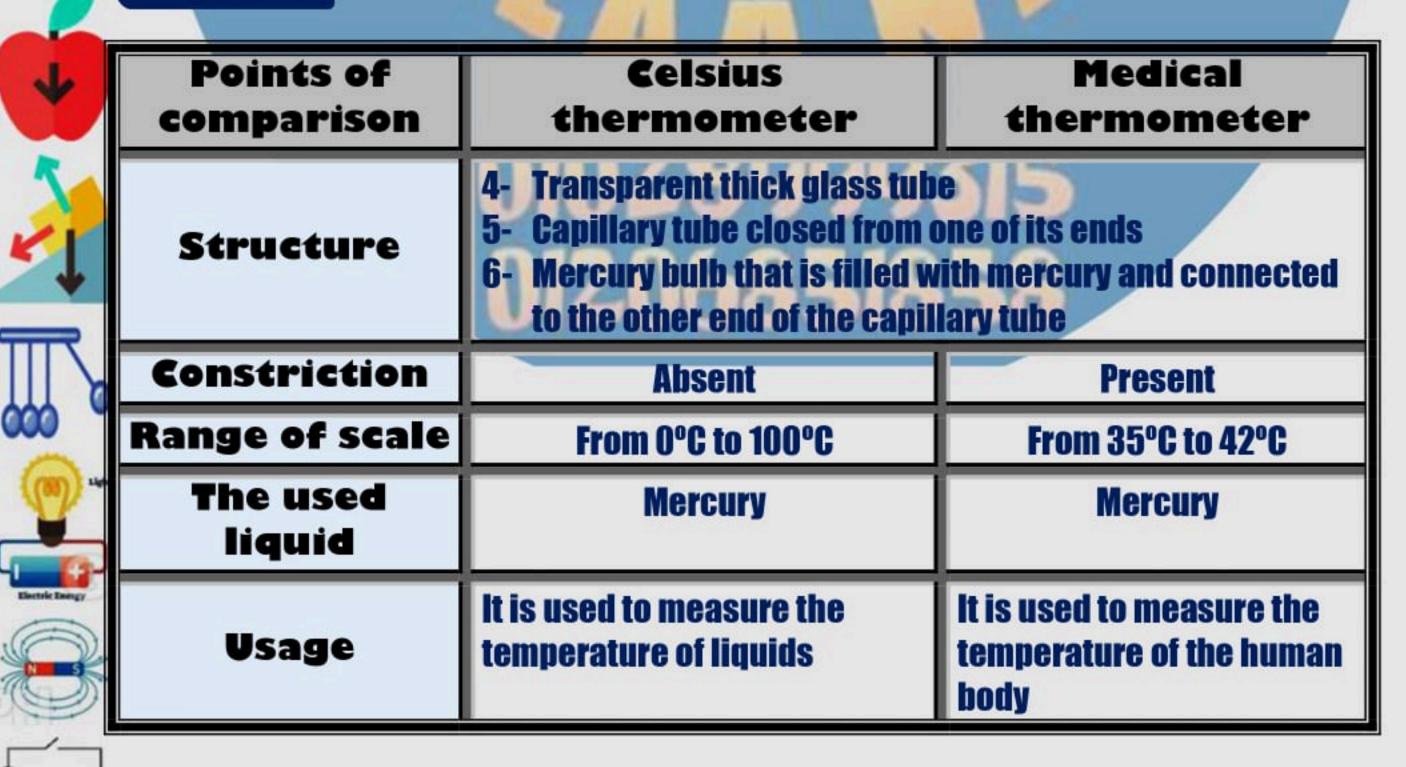
- Good conductors of heat
- c- Bad conductors of heat (heat insulators)

### Good conductors of heat such as aluminium or stainless steel are used to make cooking pots and kettles

Bad conductors of heat are used to make handles of cooking pots and



kettles





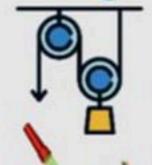






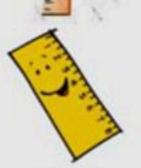












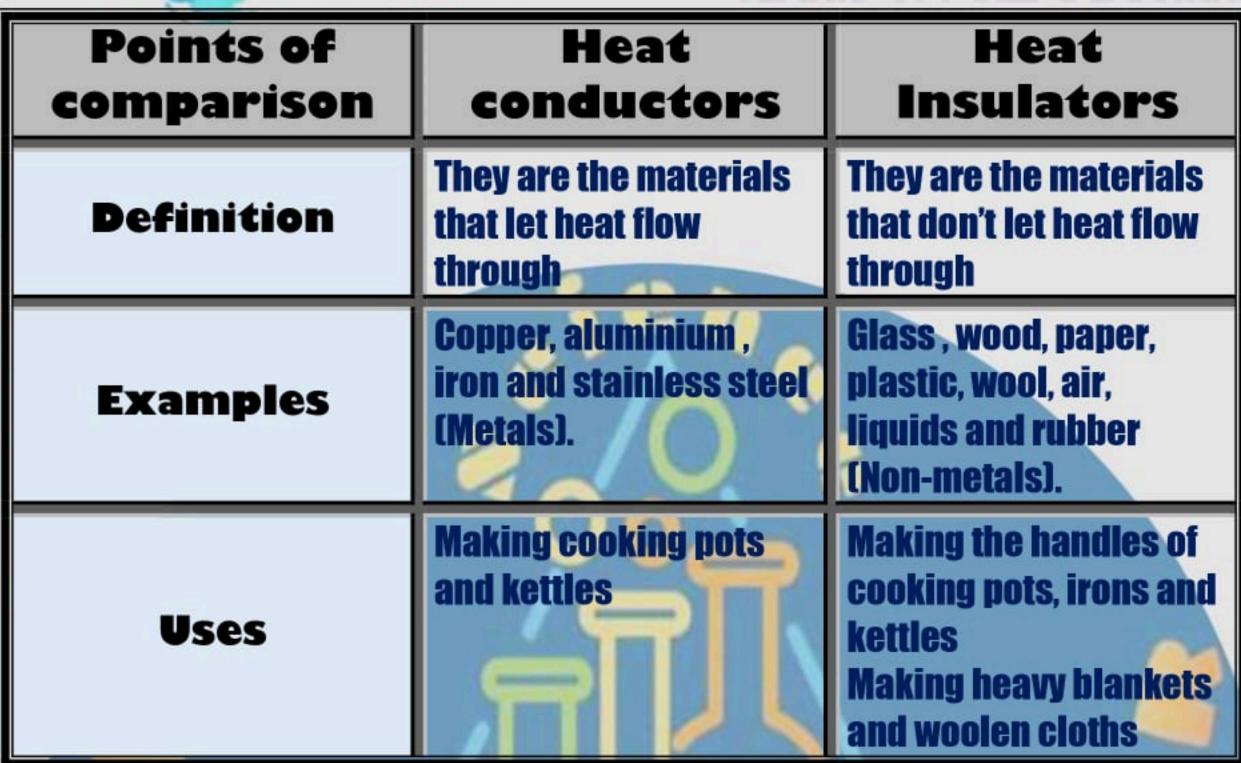








## O FINE REVISION





- X) celsius thermometer
- b-(X) medical thermometer
- (X) good conductor
- d-(X) bad conductor

- a- Mercury is used in making thermometer because:
  - 1. It is a liquid metal that can be seen easily through the thermometer glass.
  - 2. Mercury is a good conductor of heat.
  - 3. Mercury is a regular expanding material Mercury doesn't stick to the walls of the capillary tube.
  - 4. Mercury remains liquid between -39°C and 357°C
- b- because wood and plastic are bad conductors of heat.
- c- Because stainless steel and aluminium are good conductors of heat
- d- To prevent mercury from going back to the mercury bulb.



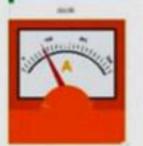










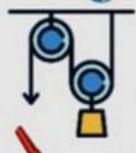














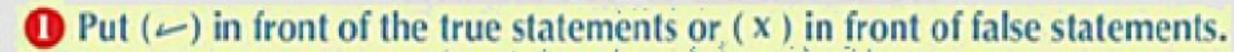


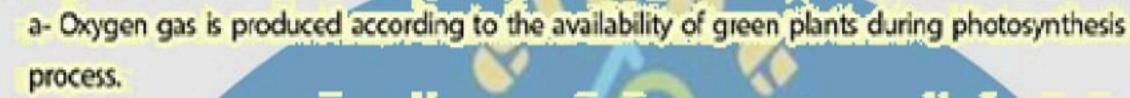






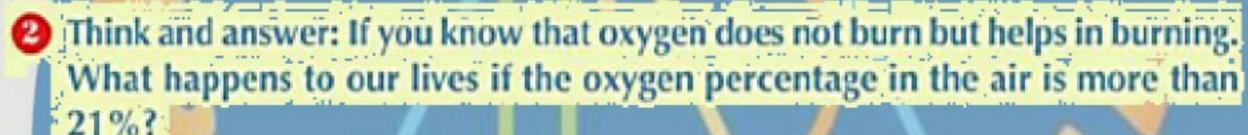
### Exercises from Student





b-Oxygen gas is prepared from hydrogen peroxide dissociates in the presence of carbon dioxide gas.

- c- The mass of materials is decreased after combination with oxygen.
- d- Ozone gas is composed of 2 atoms and it has the symbol of O<sub>1</sub>.
- e- The erosion of material which made of iron when exposed to moisture.
- f- Oxygen combines with a lighted magnesium riboon forming white substance.



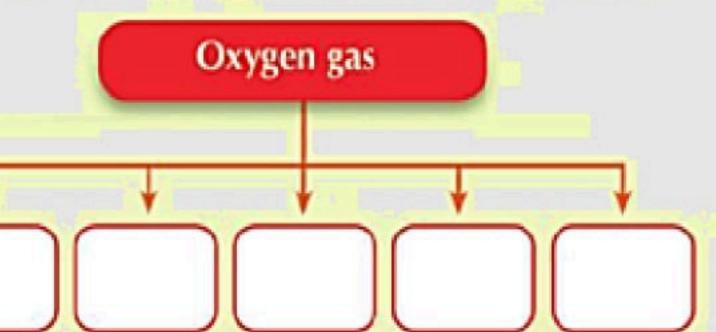
Although oxygen is consumed during respiration, its percentage remains stable in the atmosphere.



C The atmosphere has a great importance for the continuity of life on the planet.

Oxygen has a great importance for life on the planet. Water consists of oxygen united with hydrogen. Give other examples of the importance of oxygen and its uses.

Write the properties of oxygen gas in the following chart:

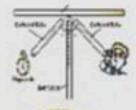






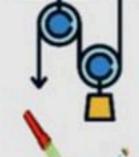






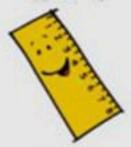
















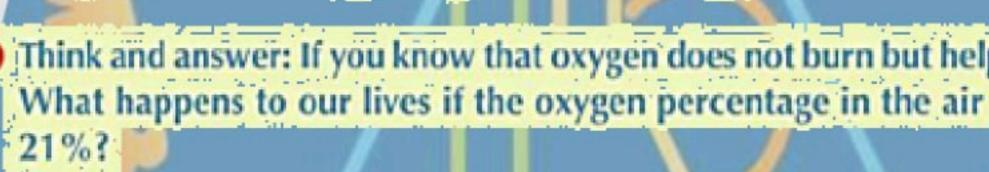


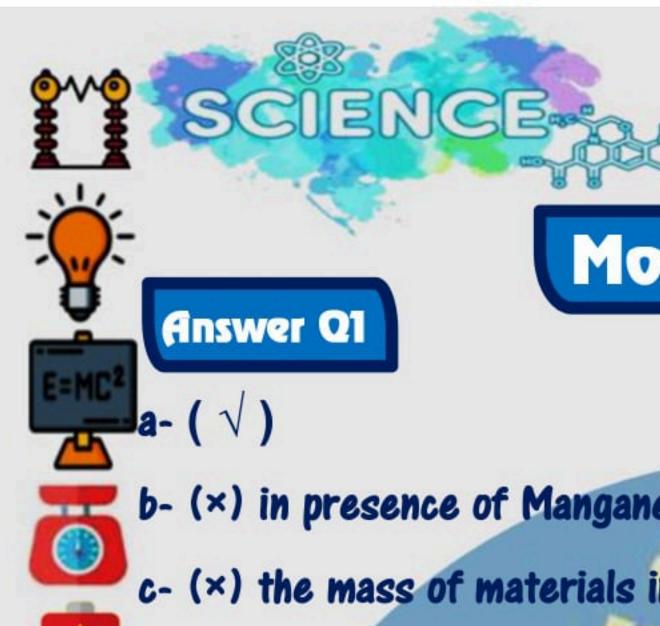






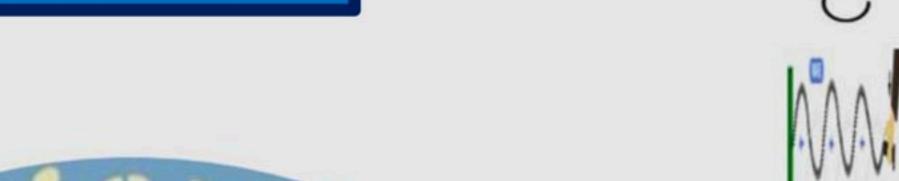














- c- (x) the mass of materials increases after combination with oxygen
- d- (x) the ozone gas is composed of 3 oxygen atoms





If the oxygen percentage in the air become more than 21% the fires will increase that may cause burning of everything on Earth's surface.

### Answer Q3

- a. Because oxygen consumed during respiration is compensated by oxygen produced during photosynthesis process made by green plants
- b. Because oxygen is scarecely soluble in water
- c. Because it protects Earth by absorping ultraviolet radiations from the space, it also adjusts the temperature of Earth's surface.

#### Answer Q4

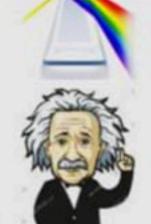
Oxygen gas forms ozone layer in the atmosphere that protects the earth from harmful radiations that come from the sun



Oxygen combines with acetylene gas to produce oxy-acetylene flame which is used for cutting and welding metals.



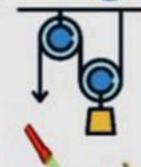




































# ENCE ® Fine Revision







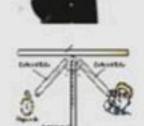
- 1) Oxygen has no colour and smell
- 2) Oxygen scarcely (rarely) dissolved in water
- (3) Oxygen has neutral effect on red and blue litmus paper
- 4) Oxygen doesn't burn but it helps in burning
- 5) Oxygen is heavier than air so it replaces the air.
- 6 Oxygen has the ability to combine with moist elements forming oxides.





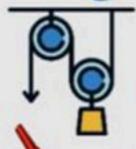






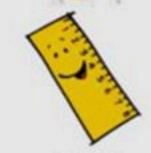






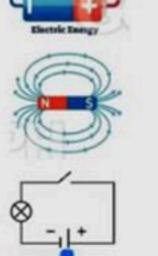




















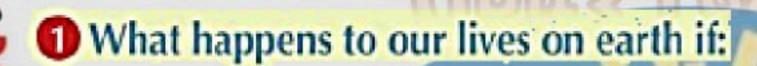








### Exercises from Student



- The percentage of carbon dioxide in the air increases.
- The percentage of carbon dioxide in the air decreases.

### Complete the following statements:

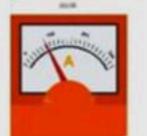
- a In photosynthesis process, the plant absorbs ..... and produces ...... gas while in respiration process, .....gas in consumed and gas is produced.
  - b True ratio of carbon dioxide gas in atmospheric air is ....... and has the symbole of ......has the symbole of ......
  - c Carbon dioxide gas is changed by to liquid then pressure is relieved composing which use in refrigeration.

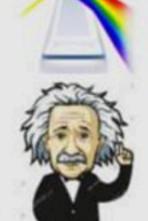
#### Justify:

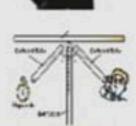
- Carbon dioxide is used in extinguishing fires.
- Yeast is added to the dough on making bread.
- Clear limewater becomes turbid when carbon dioxide passes in it.
- The environment suffer from increasing the ratio of carbon dioxide gas in recent years.





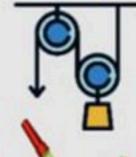






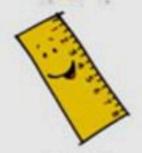






























# 20 Final Revision



#### Answer Q1

### Model Answer

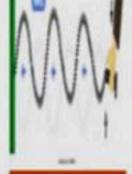


- Suffocation of living organisms
- Global warming
- Increasing the temperature of the Earth's atmosphere.
- Melting snow on the top of mountains and the two poles causing the raise of the level of sea water, so some coastal towns will drown.
- b- Green plants cannot make their food by photosynthesis process

#### Answer QZ

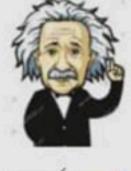
- a- Carbon dioxide gas Oxygen gas Oxygen gas Carbon dioxide gas.
- b-0.03% Its molecule  $CO_2$
- c- Pressure and cooling dry ice.
- d- To absorb carbon dioxide from air.
- e- Because it forms protein needed for building all living tissues.

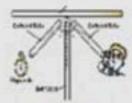
- a- Because it doesn't burn and doesn't help in burning.
- b- Because yeast produces carbon dioxide gas during fermentation process that expands by heating making the bread porous and tasty.
- c- Due to formation of calcium carbonate which is insoluble in water.
- d- Because of:
  - removal of forests
  - 2. Burning of large amounts of fuel in factories and means of transportation.





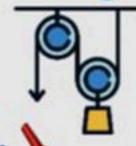






































### Exercises from Student

### Lesson3





- b Legumes such as clover benefit from the nitrogen in the air.
- Nitrogen gas is also called azote which means life gas.
- Ozone gas is used in the tanks of liquefied explosives and flammable materials.
- Oxygen gas is colorless, tasteless, odorless and does not help in burning

### Justify:

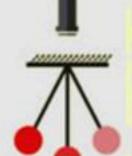
- Nitrogen is recently used in filling car tires.
- Liquified nitrogen is used for cooling food products and medicines.
- The main source of nitrogen is the air.
- d We prepare nitrogen by passing air across the sodium hydroxide or potassium.
- e Nitrogen contributes in the composition of all living tissues.

### Explain how you get:

- Nitrogen gas from the air.
- b Ammonia from nitrogen gas .









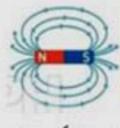


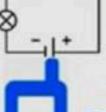




















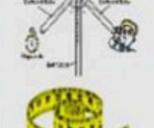




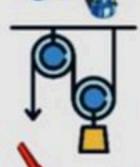






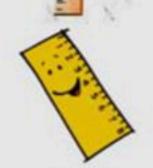
















# erina revision





#### Answer Q1

a- (X) easily react with elements as it is an inactive element



- **b** (√)
- c- (X) lifeless
- d- (X) Nitrogen
- e- (X) Nitrogen



- a- Because it keeps constancy of volume of tires when temperature changes.
- b- To preserve them during transfer.
- c- Because nitrogen forms 78% of the air volume.
- d- To absorb carbon dioxide from air.
- e- Because it forms protein needed for building all living tissues.

- a. By passing atmospheric air over sodium or potassium hydroxide to remove carbon dioxide gas then passing air over hot copper to remove oxygen.
- b. By adding water to the white matter resulted from putting lighted magnesium ribbon in a jar filled with nitrogen gas.



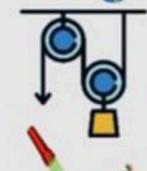






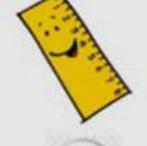
















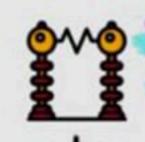












# Fine Revision





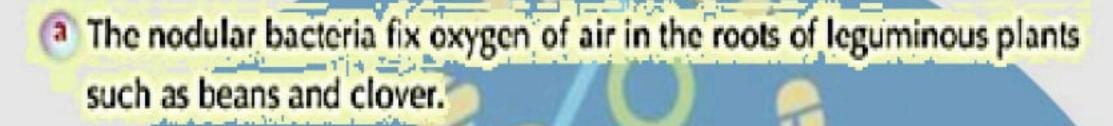
### Exercises on Unit 3



Put (✔) in front of the correct statements and (X) in front of the false ones and correct the false ones :-.









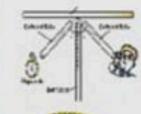
Oxygen gas occupies 78% of the atmospheric air componets.





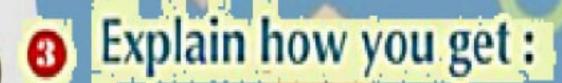


Nitrogen is used to store petroleum and some flammable materials.



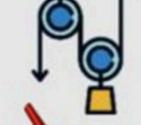
b The clear limewater is used in detection of carbon dioxide gas .







Oxygen gas from hydrogen proxide .



6 Carbon dioxide gas from wood.



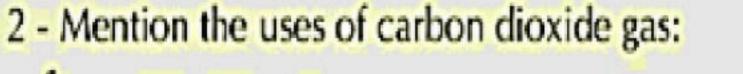
Look at the opposite figure, then answer.



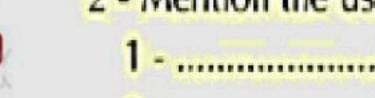
1- Write what represents each label on figure:

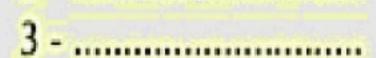


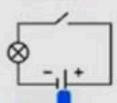
- Substance (a): .....
- Liquid (b): .....

























# etimen revision







#### Answer Q1

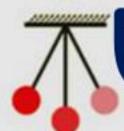






#### Answer QZ

- a- Because nitrogen is inactive element.
- b- due to the formation of calcium carbonate which is insoluble in water so it causes the turbidity of lime water

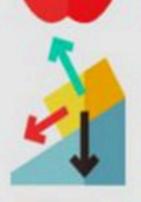


#### Answer Q3

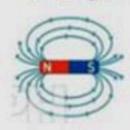
- a- By decomposition of hydrogen peroxide in presence of manganese dioxide as a catalyst to produce oxygen gas and water.
- b- By burning the wood.



- 1- a- calcium carbonate b- Dilute hydrochloric acid
- 2- Making dry ice making soft drinks extinguishing fires











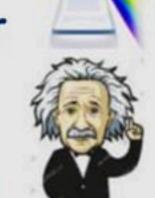


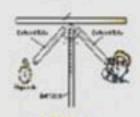






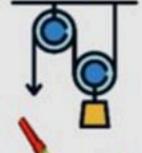
























# 25 Fine Revision



### Exercises from Student





### Unit 4 Lesson

Choose the correct answer:



- a The number of cranial nerves is pairs of nerves.
  - 31

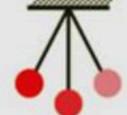




- b The grey matter in the spinal cord appears in the shape of letter



- The cerebellum is responsible for
  - thinking process
- the body's balance.
- 1 the reflex action



- d One of the components of nerve cell is the presence of
  - Blood vessels
- cover of myelin
- dendrites

SECTION SECTION



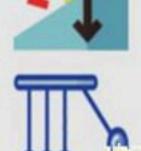
- controls reflex actions
  - Spinal cord
- Cerebellum
- cerebrum



### Write the scientific term for each of the following statements:

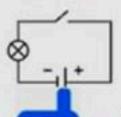
- a Automatic response of the body to different stimuli.
- b Part of the nervous system responsible for reflex actions.
- The basic structure unit of the nervous system.
- d Linked to the brain through the spinal cord and is responsible for involuntary actions.





### Locate the following parts in the human body:

- a Cerebellum
- **b** Spinal cord
- Hemispheres
- d Medulla oblangata







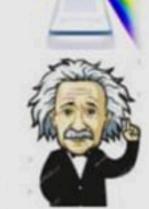


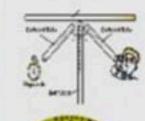




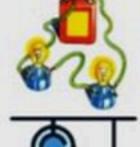


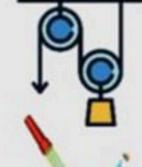






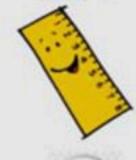


















# Fine Revision





### Mention the importance of:



a Medulla oblongata.



b Spinal cord.



c Skull.



d Cerebellum.



e The two hemispheres.



# What happens when:



a Sitting for long times in front of the computer.



Your finger gets pricked by plant thorns.



Continuous exposure to contaminated air from factories' smoke.



Approaching something to the eye.



### Give reasons for each of the following:



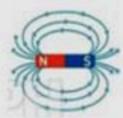
a Damage of the medulla oblangata causes death.



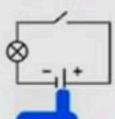
b The brain is located inside the skull and the spinal cord extends through the inside of the backbone.



It is important not to take sleeping pills without the doctor's prescription.



d Withdrawal of the hand quickly when it suddenly touches a hot surface.











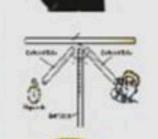




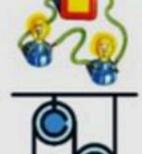


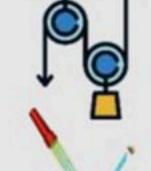






















# The Revision









- b- H
- c- the body's balance
- d- dendrites
- e- spinal cord



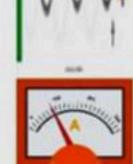
- a. reflex action
- b. spinal cord
- c. nerve cell (Neuron).
- d. Medulla oblongata
- e. Spinal cord

- a. It lies in the back area of the brain below the two cerebral hemispheres.
- b. It extends in a channel within a series of vertebrae in the backbone (the vertebral column)
- c. It is located inside a bony box called skull→ to protect it.
- d. It lies in front of the cerebellum, it connects the brain with the spinal cord.





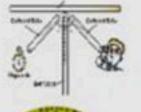






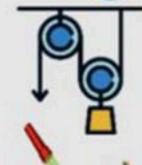






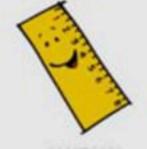




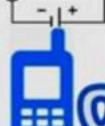












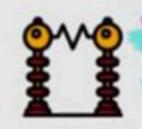
















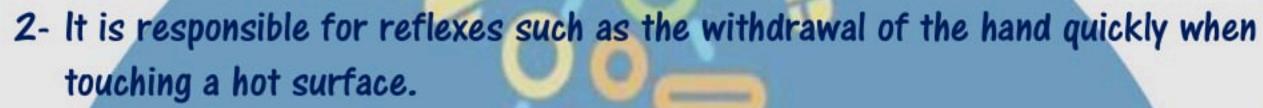






- 2- Regulating the movement of the respiratory system parts
- 3- Regulating the movements of the digestive system.





- It protects the brain
- d- It maintains the balance of the body during the movement.
- It controls the voluntary movement of the body such as running.
- 2- It receives nerve impulses from the 5 sense organs (eyes, ears, nose, tongue and skin) and send suitable responses to these impulses.
- 3- It contains the centres of thinking and memory (concentration)

#### **Answer Q5**

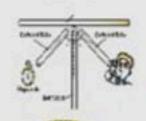
- a. Exhausting of sense organs
- Moving your hand away quickly
- They will passively affect the nervous system
- Blinking of the eye. d.

- a. Because it is responsible for:
  - Regulating heartbeats.
  - 2- Regulating the movement of the respiratory system parts
  - 3- Regulating the movements of the digestive system.
- b. To be protected from damage.
- To maintain the health of nervous system.
- Due to reflex action made by the spinal cord.



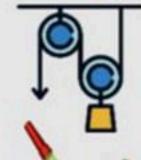






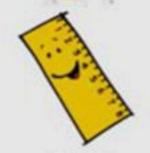


























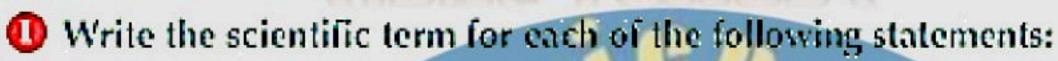




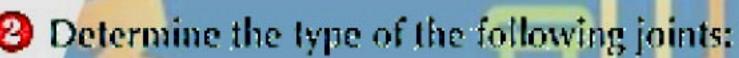




### Exercises from Student Book



- a Structure which consists of the skull, backbone and rib cage.
- b Axis of the skeleton in the human body.
- What fixes muscles to bones.
- d The type of skeleton which includes the bones of upper and the lower limbs.
- Two bones meeting area.



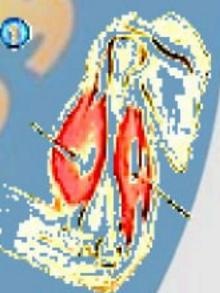
- The knee joint
- b Elbow joint
- Shoulder joint
- The following figure shows the arm in two different cases:
  - Write the names of the bones and the muscles on the figure in the two different cases.
  - b Describe what happens to the muscles during each case.

#### 🚺 What happens if:

- Thigh joint has a limited movement.
- b The front arm muscle relaxes and the back arm muscle contracts.
- How can you maintain your locomotory system?
- D Put ( // ) in front of the correct statements and ( // ) in the front of false one, and correct the false ones:
  - The skeleton of lower limb consists of humerus bone, 2 forearm bones and bones. of the hand.
  - b Knee joint is a freely movable joint.
  - Shoulder joint is an immovable joint.
  - d Joints link bones with muscles.
  - Tendons are the sites of bones meeting.

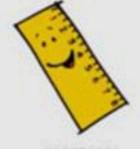






























# Fine Revision

Front

muscle

Front muscle







#### Answer Q1

- a. Axial skeleton
- b. The backbone (vertebral column)
- c. Tendons
- d. Appendicular Skeleton
- e. Joints



#### Answer QZ

- a. Slightly movable joint
- b. Slightly movable joint
- c. Freely movable joint



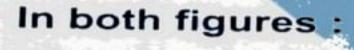
#### Answer Q3

#### In figure (a):

- The front muscle contracts and the back muscle relaxes.
- This causes the bending (moving up) of the arm by the help of elbow joint.

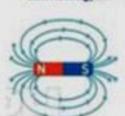


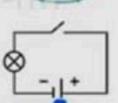
- The front muscle relaxes and the back muscle contracts.
- This causes extending (moving down) of the arm by the help of elbow joint.



The effect of the contraction or the relaxation of muscles is transferred to the elbow joint bones by the tendons that links between muscles and bones.















tibia

fibula

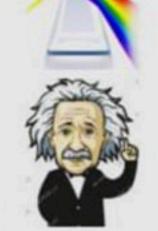
patella

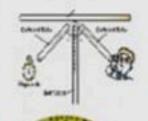
igaments















Back muscle

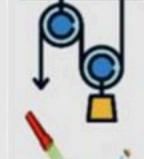
Back

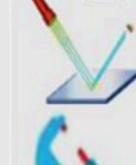
muscle

fig. (a)

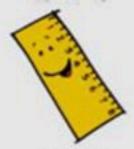
fig. (b)

Femur



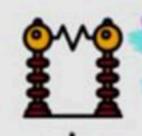














# ENCE O FINE REVISION





#### Answer Q4

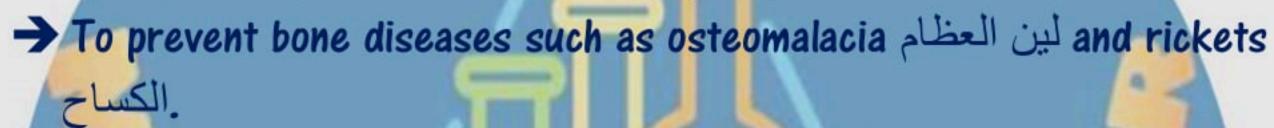


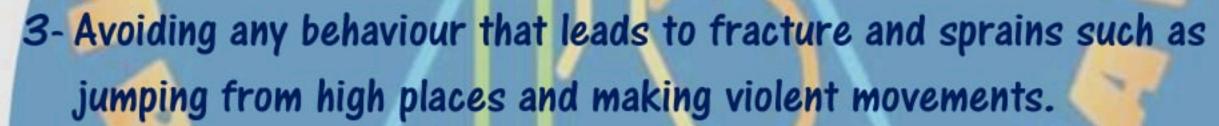


#### Answer Q5



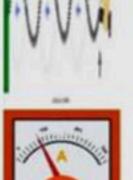




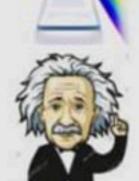


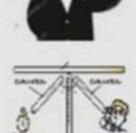
- 4-Avoid carrying heavy things that exceed your ability.
- To protect the skeleton, especially the backbone.
- 5- Sitting and standing correctly during studying or reading.
- To avoid straining the neck or backbone vertebrae.
- 6- Exposing the body to sunlight for suitable periods.
- because sunlight providing the body with vitamin D.
- 7- Exercising regularly.

- a. (x) upper limb
- b. (x) slightly movable joint
- c. (x) freely movable joint
- d. (x) tendons
- e. (x) Joints



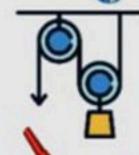










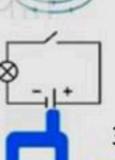
























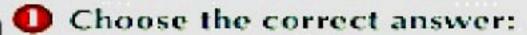




# Time revision



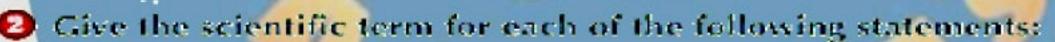
### Exercises on Unit 4



- Myelin sheath surrounds the ......
  - nerve cell axon.
  - cerebellum.
  - spinal cord.
- b Reflex action takes place through the ......
  - medulla oblongata.
  - cerebral hemispheres.
  - spinal cord.
- The joint is the location of meeting of ......
  - two bones.
  - a muscle with a bone.
  - two muscles.
- d ...... are fixed muscles with bones.
  - Tendons.
  - / Jenints.
  - Muscle fibres.



- immovable.
- slightly movable.
- free movable.

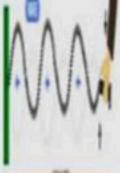


- The building unit of nervous system.
- b The organ which consists of an internal H-shaped grey matter surrounded with a white matter.
- The autonomic body response towards different stimuli.
- d The skeleton which includes the upper and lower limbs.
- Mention the location of the following parts in human body:
  - a Medulla oblongata.
  - G The cerebellum.
  - b The H-shaped grey matter.
  - d The spinal cord.
- State the importance of each of the following:
  - Tendons.
  - c Joints.
  - e Rib cage.
  - b Cerebellum.
  - d Cerebral hemispheres.



- The rapid withdrawal of the hand on sudden touching thorns of a plant.
- Muscles play an important role in human movement.
- Damage of medulla oblongata may lead to death.





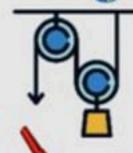




































# Fine Revision







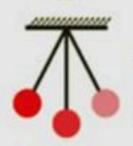
## Answer Q1

- a. Nerve cell Axon
- b. Spinal cord
- Two bones
- d. Tendons
- e. immovable



## Answer QZ

- a. nerve cell (neuron)
- b. Spinal cord
- c. The reflex action (reflexes)
- d. Appendicular skeleton



### Answer Q3

- a- In front of cerebellum
- In the back area of the brain below the cerebrum
- The inner part of the spinal cord
- d- It is extended in a channel within the backbone



## Answer Q4

- a- Tendons: they connect muscles to bones
- b- Joints: It is the location of meeting two bones
- c- The ribcage: It protects heart and the two lungs
- d- Cerebellum: it keeps the balance of the body during movements



- 1. It controls the voluntary movement of the body such as running.
- 2. It receives nerve impulses from the 5 sense organs
- 3. It contains the centres of thinking and memory (concentration)



## Answer Q5

- a-Due to the reflex action made by the spinal cord.
- b-Because muscles generates mechanical energy that moves our bodies.
- c- Because the medulla oblongata controls involuntary processes such as heartbeats, movements of respiratory system and movements of digestive system.





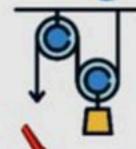






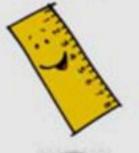




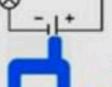
























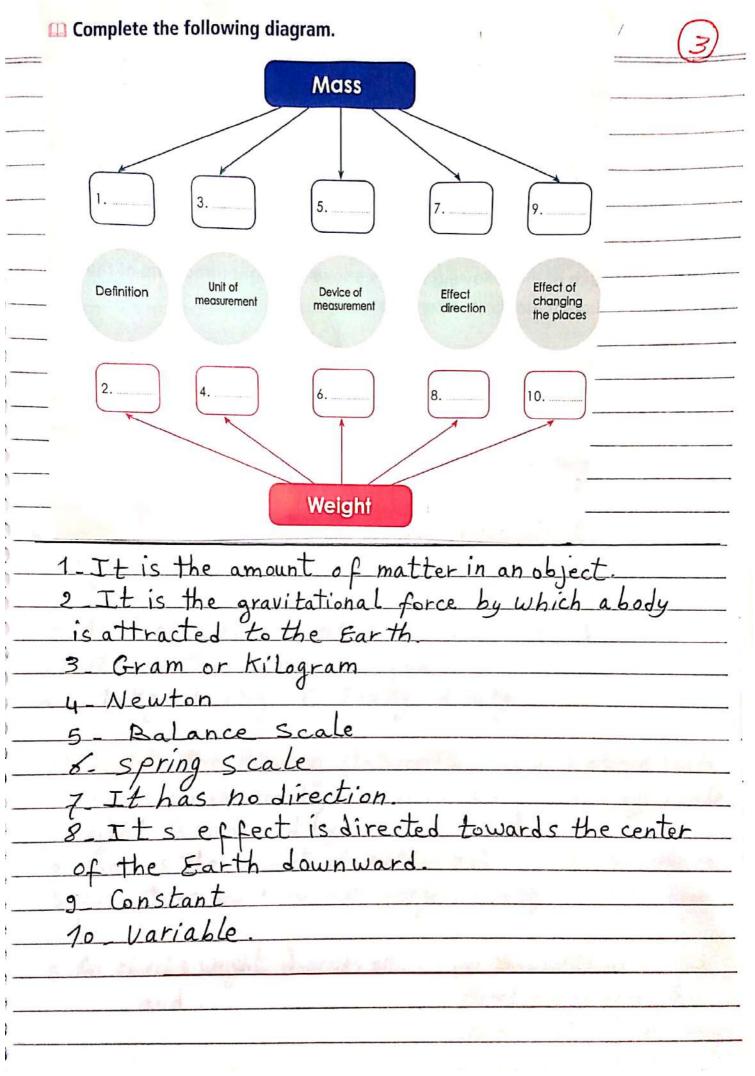
	Super Questions of the s	School book a
61010	(Unit 1) (Mass and Waight)	V
9 6	1) Complete the following sentences: a) The measuring unit	
1010	aring Unit acmoss is	a) gm - Kg
1313	Weight is the measuring unit of	Newton
atala	b) Mass is measured by Whereas Weight is measured by	
to the	Weight is measured by  C) Mass is a constant and is not  affected by	<pre>spring scale </pre>
( ) ( )	d) The object's weight depends (on)	d) the object's mass_
100	)	the planet (Place) Where the object
100		exists:
(A)	2) Write the Scientific term: a) The amount of matter in an object.	a) Mass
C. C.	is attracted to the Earth	b) Weight (gravitational
3	c) The measurement unit of mass	force) c) Kilogram
16.6.6.6.6.6.6.6.6.6.6.6.6.6.6.	which is almost equal to a mass	- Jistogram
7	d) The measurement unit of weight	d) Newton
7	Which is almost equal to a mass  100 grams.	
TA TA		
PALA		
1	GHARIB	

Subject	





	(2)
3_An object whose mass on Earth is eque Calculate its weight on both surfaces of and the moon.	
The weight of object on the Earth =  The weight of object on the moon =  1 x the weight of object  = 1 x 60 = 60 = 10 Newton.	6×10=60 Newton
4 The following (pictures) illustrate the of calculating a liquid mass using the look at the pictures and then calculate and weight of this liquid.	steps e digital scale.
he mass of liquid - 186.73 119.76	16 g
The mass of liquid (Kg.) = 66.97 =	-0.06697 Kg
- The weight of liquid = Mass (Kg) = 0.06697	X10=0.6697 Newton
of the state of the design of	ed to a partir
de morale	



#### Choose from column (A) what suits it in column (B):

(A)	(B)
1. Newton	a. The gravitational force for an object.
2. Mass	b. The measuring unit of mass.
3. Kilogram	c. The measuring unit of weight.
4. Weight	d. The amount of matter in an object.
5. Spring scale	e. The measuring device of weight.

(1-c) (2-d) (3-b) (4-a) (5-e)

Unit (1) Test	5
1) Choose the correct answer	: 1-d spring scale
1. The device of measuring uveight	is
1-The device of measuring uveight a One arm scale b. two arms scale	
C digital Scale d spring scale	
2-An object whose weight is 20 New on the Earth, its mass is equal t	Ton 2 b 2 kg
	The state of the s
a. 10 kg b. 2 kg C. 200 kg d.	20 Kg
2) Complete the following statements	1 b alance scale
1. Mass is measured by swhere	
weight is measured by.	
2 Mass is the amount of matter to	hat 2-the place according of the body
body contains and it does not change of	according of the body
+	
3 An object's weight depends on.	3 the object's mass the
and	planet (place) where the object exists - the distance
	Lotween the shiest and
GHARIB	between the object and the center of the Planet

Subject :	1	/

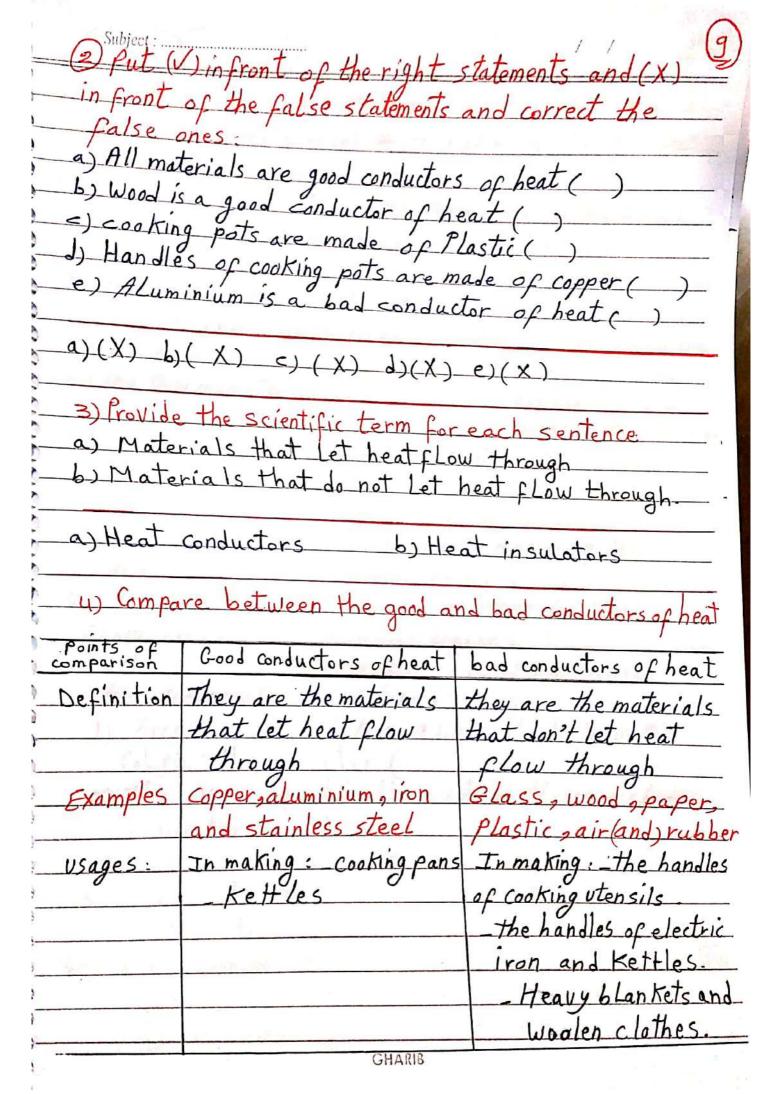
/	(
/	(6)

# 3 - fill in the following table:

	201	
Points of comparison	Mass	Weight
Definition		-
	The amount of matter in an object	force by which the
		body is attracted to
Unit Manage +		the Earth.
Unit of measurement	Kilogram orgram	Newton
Device of measurement	-Balance scale	
/	-sensitive two arm	s pring scale
	scale	
	-one-arm digital	
	<u>scale</u>	
4.0	-one-orm scale with a Pointe	The state of the s
Direction	It has no direc	
		always directed
	<u> </u>	towards the
A CONTRACTOR		Center of the
Camb I Sugar at	has marketter of	Earth Gownward
Effect of	L L	AND STATE OF THE S
different places	Constant	variable
	(It Joesn't change	(It changes with changing the place)
	with changing the place)	with changing
	the place)	the place)
_		

Subject:	_
4- If an object 3 mass = 30 kg, on the Earth, calculated I Its mass on the moon = Its mass on the Earth =	ate.
3 o Kg. 2-Its weight on the Earth: - Mass(Kg) x 10 = 30×10= 300 Newton	
3_ Its weight on the moon = 1 x300 - 50 Newton.	_

Unit (2) Lesson 1 Heat cond	uction (8)
1) Complete the following sentences	
a_(AII)metals are conductors of heat.	
b conducts heat faster than	b copper
aluminium.	
c Some examples of good conductors	c_ copper-Iron
of heat are and	
I some usages of good conductors	d Making cooking Pots
of heat are and.	making Kettles
e-Some examples of bad conductors	U
of heat are - and -	plastic
f Some usages of bad conductors	f - Making heavy
of heat are and	blankets_making
	the handles of
	Kettles.
Jan Barrier Branch	Bour to Law Har



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3. Range of scale:

4. The used liquid:

5. Usage:

(Thermometric material)

Subject :		/ / (			
3) Write the Sci statements.	entific term for e	each of the following	7 ·		
a) Adevice used to measure the temperature of liquids					
b) A device used to measure the temperature of the human being. c) The liquid used in making thermometers.					
a) Celsius thermometer b) medical thermometer c) Mercury					
4) Compare bet thermometer in	ween the medical	Land the Celsius usage			
Points of comparison	Celsius thermometer	Medical thermometer			
1. Structure :	a. Transparent thick glass to b. Very thin capillary tube.     c. Mercury bulb that is filled	be.			
2. Constriction :	Absent.	Present.			

From 0°C to 100°C.

It is used to measure the

temperature of liquids.

Mercury.

Scanned by CamScanner

From 35°C to 42°C.

It is used to measure the

temperature of human body.

Mercury.

To prevent mercury from going back quickly to the bulb in order to read the measurement easily.



## 5) write the properties of oxygen gas

- Oxygen is a colourless, tasteless and odorless gas.
- Oxygen is collected by the downward displacement of water as oxygen rarely dissolves in water.
- Oxygen doesn't burn, but it helps in burning.
- Oxygen is heavier than air, so it replaces air.
- Oxygen combines with lighted magnesium to form magnesium oxide which is white matter.
- Oxygen has the ability to combine (unite) directly with most elements forming oxides.

1			
1) what happens to our lives on the Earth if:			
a) the percentage of carbon dioxide in the air increases  The temperature of the Earth will increase.  Living organisms will a second			
The temperation of carbon dioxide in the air increases			
- Living Arasis	In crease.		
Living organisms will suffocate	)		
b) The percentage of carbon dioxidence decreases.	le in the air		
decreases.	in the an		
- Green plants cannot make ob-to-	#		
So the percentage of Avusan will la	yninesis process,		
atmosphere and living	crease in The		
Green plants cannot make photos So the percentage of oxygen will de atmosphere and living organism	s will die.		
4 4			
2) Complete:			
a) In photo synthesis process, the	a) Carbon dioxide Oxygen		
plant absorbs - gas and produces			
gas While in respiration process,	oxygen_carbon dioxide		
gas in consumed and gas is	I was a second		
plant absorbs gas and produces  gas while in respiration process,  gas in consumed and gas is  produced.			
Nas la			
b) The ratio of carbon dioxide a as	b) 0.03 do		
in atmospheric air is and has The	1000		
symbol.	Coz		
symbol livila accisal and 1			
and to liquid then pressure is relieved  composing which use in refrigerations	c) Pressure cooling		
and to liquid then pressure is relieved	1.1		
composing which use in refrigera	Ton dryice		

b) Nitrogen gas is also called azote which means
Life gas ()

() Nitrogen gas is colorless, tasteless, odorless
and dissolves in water (asily ()

a) (V) b) (X) Lifeless gas c) (X) and Scarcely dissolves in water

2) Give reason

The main source of nitrogen is the air.

Because nitrogen forms 78% of the volume of atmospheric air

20)
in
) ?
17 s
ver (
air

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2) Justify (Give reasons for the following)  The clear limewater is used in detection of carbon  dioxide gas
- The clear limewater is used in detection of carbon
aloxide gas
Decause clear Limewater turbids when carbon dioxide
dioxide gas  Because clear Limewater turbids when carbon dioxide  gas passes through(it).
3) Explain bould at
1- Oxygen gas Gran la 1
Hydrogen peroxide is done to the
oxygen gas in the and
3) Explain how you get:  1 Oxygen gas from hydrogen peroxide.  Hydrogen peroxide is decomposed into water and  oxygen gas in the presence of manganese dioxide
2. Carbon dioxide from wood.
By burning (combustion) actuard contaction
By burning (combustion) of wood, carbon dioxide gas is produced
4) look at the opposite figure, then answer:  1-Write what represents each label on figure.  Substance (2):  1-10
1- Write what represents each label on figure.
Substance (a):  Liquid (b):
Liquid 6:
2-Mention the uses
of carbon diaxide gas. Carbon dioxide gas
1.2.3
1-a) Calcium carbonate b) dilute hydrochloric acid
2 1 It is used in making bread.
2- It is used in making soft drinks.
3. It is used in extinguishing some types
of fires.

CJ NIL	
a) The number of answer:	
a) The number of answer:	
	a) 12
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-b)-H
I Sho Do . O lotte le	
(thinking a thinking a	c) the body
thinking process the body's balance -	c) the body balance
et ac action)	
d) One of the components of nerve cell	d) dendrites
is the presence of	
(Blood vessels - cover of myelin - dendrites)	
(Spinal cord _ cerebellum cerebrum)	e) spinal cord
( Crebrum)	
a) Automatic response of the body	and the same
a) Automatic response of the body	a) the reflex
to different stimuli.	action
b) Part of the nervous system	b) the spinal
responsible for reflex actions	Card
() the basic structure unit of the	c) Nerve cell
nervous system	(Neuron)
1) Linked to the brain through the spine	ald) Medulla
cord and is responsible for involunta	ry oblongata
actions	0
e) Consists of a grey matter in  the form of H Letter surrounded by the white matter	e) the spinal
the form of H Letter surrounded	cord
by the white matter	und traditions of
	produced to the control of the contr
Control of the state of the sta	

3) 100 + 11 0
a) (Cerebellums) At the back area of the brain (below)  the two cerebral hemispheres.
the tula care the back area of the brain (below)
the two cerebral hemispheres.
6) Spinal Cord: In a Channel within a series  of Vertebrae in the backbone
Of Wathannel within a Series
vertebrae in the backbone
Hemispheres: In the brain
(d) Medulla oblongata: In the brain in front of the cerebellum.
In the brain in front of
The Cerebellum.
4) Mention the importance of:  a) Medulla oblongata & It is responsible for regulating the involuntary processes of the body as:  Regulating the heart beats.  Regulating the movement of the respiratory system farts Juring breathing.  Regulating the movements and functions of the digestive system.
a) Medulla oblangata : It is researcille consentité
the involuntary processes of the bady as:
Regulating the heart beats
Regulating the movement of the respiratory system
Parts Juring breathing.
Regulating the movements and functions of the digestive
system.
the madashes with a same
6) Spinal cord : It delivers the nerve messages from
the body organs to the brain and vice versa
b) Spinal cord: It delivers the nerve messages from the body organs to the brain and vice versa.  It is responsible for the reflex actions.
the state of the s
SKull: It protects the brain.
d) Cerebellum: It maintains the balance of the body
Jerebellum: It protects the brain.  J. Cerebellum: It maintains the balance of the body  Juring the movement.

(A) A) 4: 11
4) Mention the importance of:
nemispheres: IT controls the water
movements of the body
- It receives the nerve in a lace of the
organs and sonle the situation in the sense
It receives the nerve impulses from the sense organs and sends the suitable (responses) to these impulses.
It contains the centers of thinking and memory.
5) What happens when: a) Sitting for long times in front of the computer. The nervous system will be exhausted.
a) Sitting for long times in front of the computer
The nervous system will be exhausted
The analysis of the second second
b) your finger gets pricked by plant thorns. The withdrawal of your hand will occur quickly.
The withdrawal of your hand will accus quickly
c) Continuous exposure to contaminated air from factories smoke.  The nervous system will be exhausted.
factories smoke.
The nervous system will be exhausted
d) Approaching something to the eye.
J) Approaching something to the eye.  The blinking of the eyelashes will occur.
6) Give reasons for each of the following.
a) Damage of the medulla oblangata causes do H
Because medulla oblangata controls all the invited
processes (as heartheats movement of the wasint
System parts during breathing mayonate
Cunctions of the Linesting out to
a) Damage of the medulla oblangata causes death.  Because medulla oblangata controls all the involuntary processes (as heartheats, movement of the respiratory system parts during breathing, movements and functions of the digestive system).

Subject :	1	1	25
			(2)
b) The braining for:			
July 18 located in all all 11	_هـ	n d	
	e 1	nsid	е
of the backbone			
Because the skull protects the brain the backbone protects the spinal cord.	ar	d	
the backbone protects the spinal cord.			
The state of the			
C) It is important not to take sleeping without the doctor's prescription.	2	pill	5
without the doctor's prescription	1 /		
To maintain the nervous system heal	H.		
	55-53		
d) Withdrawal of the hand quickly Whe suddenly touches a hot surface.  Due to the reflex action made by the	'n	it_	
suddenly touches a hot surface			
Due to the reflex action made by the	je	sein	al
Card		-/	

1) Write the Scientific term for ea	ich of the
tollowing statements.	
the skull, backbone and	a) Axial skeleton
the skull, backbone and	
l'bcage.	
b) Axis of the skeleton in the human	b) backbone.
pody.	
includes the bones of upper	c) Appendicular Skeleton
includes the bones of upper	skeleton
and the lawer limbs	
1) Two bones meeting area	d) joint
2) Determine the type of the following	ng joins:
a) the knee joint: slightly mov	able joint
b) EL bow joint: 5 Lightly mo	vable joint
a) the knee joint: slightly moved b) Elbow joint: Slightly moder joint: Freely moved	ble join!
3) what happens if:	ment
Thigh joint has a limited move The lower limbs will move in on	e direction only
The Lower Limbs will move in on	C G / CCS/GIT GTT G
4) Put (V) or (X) and correct the f	alse ones:
a) The skeleton of lower (Limb) consists of t	numerus bone.
a) The skelelon of cower amb consist of	hand()
2 forearm (bones) and bones of the	t ( )
b) Knee joint 15 à freety movade join	ioint ( )
b) Knee joint is a freely movable joint of shoulder joint is an immovable	<del></del>
a(x) skeleton of upper limb. b(x) as	lightly movable.
a(X) skeleton of upper limb. o(x) &s	-11-3-11-J
=)(x) a freely movable	2 (2) un

# General Exercise of the School Book on



1.	Choose the correct answ	ver :	•
	1. Myelin sheath surround	s the	as allow the
	(a) nerve cell axon.	b. cerebellum.	c. spinal cord.
	2. Reflex action takes place	ce through the	
	The dulla obioligata.	b. cerebral hemispheres	(c)spinal cord.
	3. The joint is the location	of meeting of	The colon the
		o, a muscle with a bone.	c. two muscles.
	4. Skull joints are	heart and the Lungs	at Protects the
	(a) immovable.	b. slightly movable.	c. free movable.
2.	Give the scientific term	for each of the following sta	atements :
		vous system.	
	2. The organ which consist	sts of an internal H-shaped gr	av matter
	surrounded with a white		spinal

#### 3. Mention the location of the following parts in human body:

4. The skeleton which includes the upper and lower limbs. (Appen of

3. The automatic body response towards different stimuli.

1. Medulla oblongata.

In front of the cerebellum in the brain

2. The H-shaped gray matter.

Inside the spinal cord

3. The cerebellum.

At the back area of the brain below the two cerebral

hemispheres

4. The spinal cord. In a channel within a series of vertebrae in the backbone.

SKeleton

4.	State	the	impor	tance	of e	ach	of	the	follo	wina	
			poi	LUITOC	OI C	uon	v.	LIIC	10110	111119	

- 1. Cerebellum. It Keeps the balance of the body during movement
- 2. Joints.
  They a Llow the movement between bones
- 3. Cerebral hemispheres. They control the voluntary movements of the body They receive nerve impulses from the sense organs and Send the suitable responses to these impulses They contain the centers of thinking and memory.
  - 4. Ribcage.
    It Protects the heart and the Lungs
  - It helps in the inhalation and the exhalation processes

#### 5. Give reasons for :

- 1. The rapid withdrawal of the hand on sudden touching thorns of a plant.

  Due to the reflex action made by the spinal cond
- 2. Damage of medulla oblongata may lead to death.

  Because medulla oblongata controls all

  the involuntary processes such as heartbeats

a come and while all a

the combined the a the A